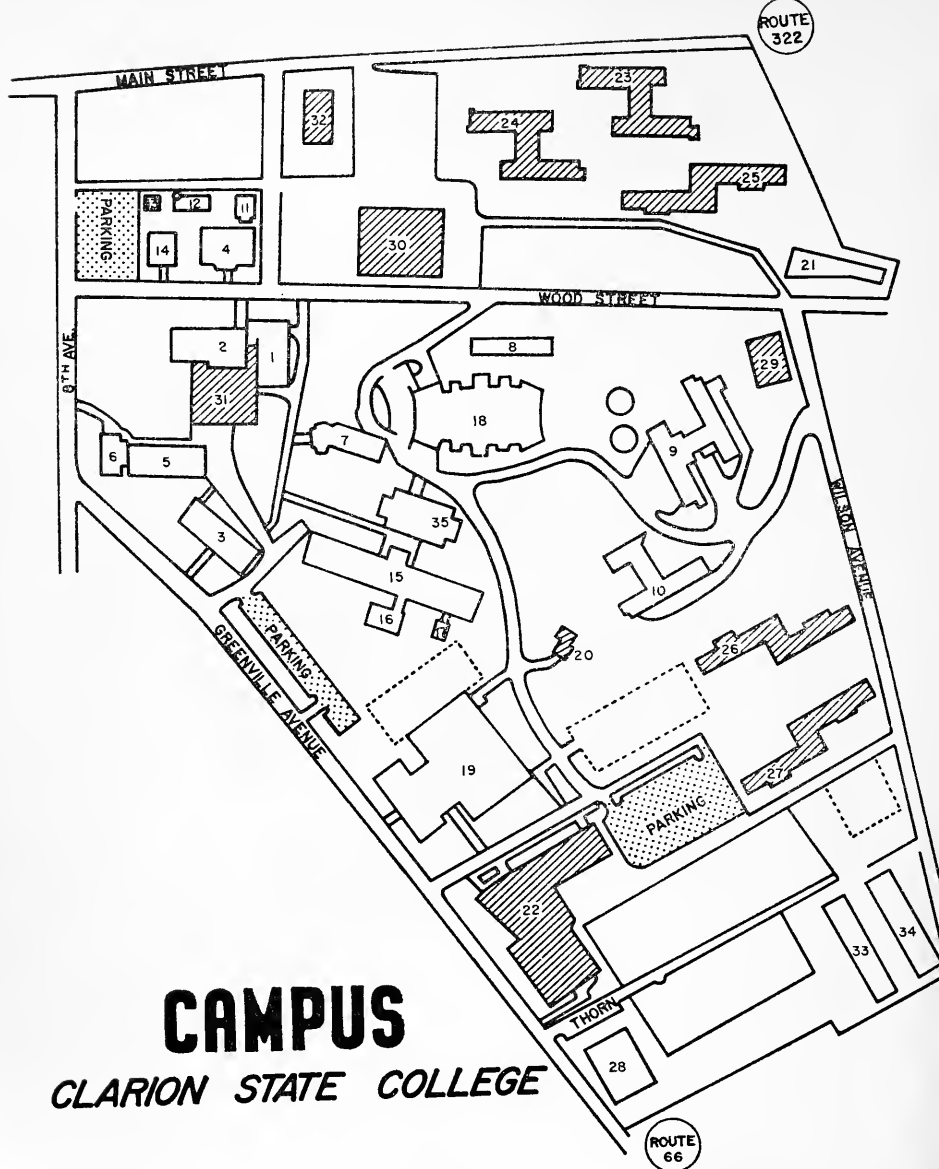


CLARION

STATE
COLLEGE



1968-1969



CAMPUS

CLARION STATE COLLEGE

- | | | |
|------------------------------|----------------------------|-------------------------------|
| 1. ADMINISTRATION-CLASSROOMS | 13. ELECTRICAL CENTER | 24. DORMITORY* |
| 2. CARLSON LIBRARY | 14. CHAPEL | 25. DORMITORY* |
| 3. DAVIS HALL | 15. NEW SCIENCE BUILDING | 26. DORMITORY* |
| 4. OLD SCIENCE HALL | 16. PLANETARIUM | 27. DORMITORY* |
| 5. STEVENS HALL | 17. GREENHOUSE | 28. RESEARCH LEARNING CENTER* |
| 6. SPECIAL EDUCATION CENTER | 18. CHANDLER DINING HALL | 29. HEALTH SERVICES CENTER* |
| 7. EGBERT HALL | 19. NEW GYMNASIUM | 30. STUDENT CENTER* |
| 8. BALLENTINE HALL | 20. PRESIDENT'S RESIDENCE* | 31. LIBRARY ADDITION* |
| 9. GIVEN HALL | 21. WAREHOUSE | 32. ADMINISTRATION BUILDING* |
| 10. RALSTON HALL | 22. FINE ARTS CENTER* | 33. MAINTENANCE DIVISION* |
| 11. LAUNDRY SERVICES | (AUDITORIUM) | 34. MAINTENANCE DIVISION* |
| 12. POWER PLANT | 23. DORMITORY* | 35. HARVEY GYMNASIUM |

The Clarion

Volume LVII

1968

Number 1

Clarion State College

Clarion, Pennsylvania

MEMBER OF
AMERICAN ASSOCIATION OF COLLEGES FOR
TEACHER EDUCATION

ACCREDITED BY
MIDDLE STATES ASSOCIATION OF COLLEGES
AND SECONDARY SCHOOLS

ACCREDITED BY
NATIONAL COUNCIL FOR ACCREDITATION OF
TEACHER EDUCATION

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*Clarion State College
welcomes qualified students,
faculty, and staff from all
racial, religious, ethnic, and
socio-economic backgrounds.*

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CALENDAR 1967-1968

PRE-SESSION 1967

Session Begins	Monday, June 5
Session Ends	Friday, June 23

REGULAR SESSION 1967

Session Begins	Monday, June 26
Session Ends	Friday, August 4

POST SESSION 1967

Session Begins	Monday, August 7
Session Ends	Friday, August 25

FIRST SEMESTER 1967-68

Registration of Freshmen and New Students	Monday, September 11
	Tuesday, September 12
Registration of Upperclassmen	Tuesday, September 12
	Wednesday, September 13
Classes Begin at 8:00 A.M.	Thursday, September 14
Evening Classes Begin	Thursday, September 14
Thanksgiving Recess Begins 5:05 P.M.	Tuesday, November 21
Thanksgiving Recess Ends 8:00 A.M.	Monday, November 27
Applications for graduation in May or Summer 1968 are due	Friday, December 1
Christmas Recess Begins 5:05 P.M.	Friday, December 15
Christmas Recess Ends 8:00 A.M.	Tuesday, January 2
Final Tests Start	Saturday, January 13
Evening Classes End	Thursday, January 18
Semester Ends Noon	Tuesday, January 23

SECOND SEMESTER 1967-68

Registration	Monday, January 29
	Tuesday, January 30
Classes Begin	Wednesday, January 31
Evening Classes Begin	Thursday, February 1
Applications for graduation in January, 1969, are due	Friday, April 5
Easter Recess Begins 5:05 P.M.	Wednesday, April 10
Easter Recess Ends 8:00 A.M.	Tuesday, April 16
Final Tests Start	Thursday, May 16
Evening Classes End	Thursday, May 23
Alumni Day	Saturday, May 25
Semester Ends	Saturday, May 25
Commencement	Sunday, May 26

CALENDAR 1968-69

PRE-SESSION 1968

Session Begins	Monday, June 3
Session Ends	Friday, June 21

REGULAR SESSION 1968

Session Begins	Monday, June 24
Session Ends	Friday, August 2

POST SESSION 1968

Session Begins	Monday, August 5
Session Ends	Friday, August 23

FIRST SEMESTER 1968-69

Registration of Freshmen and New Students	Monday, September 9
	Tuesday, September 10
Registration of Upperclassmen	Tuesday, September 10
	Wednesday, September 11
Classes Begin at 8:00 A.M.	Thursday, September 12
Evening Classes Begin	Thursday, September 12
Thanksgiving Recess Begins 5:05 P.M.	Tuesday, November 26
Thanksgiving Recess Ends 8:00 A.M.	Monday, December 2
Applications for Graduation Due	Friday, December 6
Christmas Recess Begins 5:05 P.M.	Friday, December 20
Christmas Recess Ends	Monday, January 6
Final Tests Begin	Monday, January 13
Evening Classes End	Thursday, January 16
Semester Ends	Tuesday, January 21

SECOND SEMESTER 1968-69

Registration	Monday, January 27
	Tuesday, January 28
Classes Begin	Wednesday, January 29
Evening Classes Begin	Thursday, January 30
Application for Graduation Due	Friday, April 4
Easter Recess Begins 5:05 P.M.	Wednesday, April 2
Easter Recess Ends 8:00 A.M.	Tuesday, April 8
Final Tests Start	Thursday, May 15
Evening Classes End	Thursday, May 21
Alumni Day	Saturday, May 24
Commencement	Sunday, May 25
Semester Ends	Monday, May 26

THE CAMPUS AND FACILITIES

Main Campus

The main campus of Clarion State College occupies a tract of 55 acres. The Memorial Athletic Field provides recreational area of 29 acres for athletic events. The evolving arrangement of the campus, including its academic buildings, residence halls, service buildings, walks and roadways are the result of a series of master plans for growth of the college. The physical plant development is the result of careful study to provide a functional and aesthetically attractive campus.

The Administration and Library Building is a new structure facing Wood Street from the front campus. The west wing is occupied by the Library and the Library Science Department. The second wing houses college administrative and business offices and classrooms. The college book store is in the basement of the administrative wing.

The Rena M. Carlson Library, named for the College Librarian from 1929 to 1963, is located in the Library-Administration Building and contains approximately 115,000 volumes. Over 1800 periodical titles are received currently. The Library is growing rapidly to provide students and faculty with materials of instruction, cultural advancement, recreation, and research. A significant reference collection, an open-stack policy permitting all library users direct access to books, and a dedicated staff supply the resources essential for successful college experiences. It also houses a Curriculum Library and a Juvenile and Young People's Collection.

An elementary school library in the Thaddeus Stevens Laboratory School serves children, teachers, and student teachers. The branch library at Oil City accommodates immediate research needs for students and faculty on the Venango Campus.

Library Addition which is under construction in 1967-68 will triple the existing floor space. As a four-floor structure, it will provide a total volume capacity of approximately 280,000 volumes. A second addition of five floors is scheduled.

Davis Hall was named for A. J. Davis, President of the College from its beginning as a state institution in 1887 to 1902. The structure, located on Greenville Avenue, which was built in 1934, was completely remodeled in 1967-68. It is the Audio Visual-Closed Circuit Educational Television Center for the campus. Both CCTV and radio origination studios are located here as well as the Audio-Visual department, its classrooms, laboratories, and offices.

Old Science Hall presently houses the Art and Music departments including classrooms, rehearsal and practice studios, art studios, and offices. These departments are temporarily located here following the transfer of the Physical Science and Geography departments to the New Science Hall.

Thaddeus Stevens Laboratory School was named for Thaddeus Stevens, the father of the Pennsylvania Public School Law of 1834.

It accommodates a kindergarten to sixth grade public school for demonstration purposes and student-teaching by prospective elementary teachers. It will be converted to a college classroom building in 1969 and its present function will be served in the new Research-Learning Center.

The Special Education Building is a new wing on the west end of Thaddeus Stevens Laboratory School facing Eighth Avenue. The structure houses five classrooms, a psychological clinic, a thirty-station language laboratory, and the Special Education reception center and offices. The Speech and Hearing Clinic with diagnostic and remedial speech and hearing services is available to all college students and other interested individuals requesting these services. The Clinic is housed in the Special Education Center and is equipped with the latest diagnostic and remedial instruments.

Egbert Hall was named for Professor Walter R. Egbert, who was teacher and Dean of Men at the College from 1887 to 1920. The Offices of the Dean of Students, Admissions and Student Aid, as well as faculty offices are located here. Health service and infirmary service are provided in a well equipped facility located on the first floor. A professional nursing and medical staff is available for general health problems.

Health Services Center will be constructed on a site bounded by Wood Street and Wilson Avenue. It will provide modern clinical and infirmary facilities and offer services of a full-time medical staff.

Music Hall is now a classroom and office building for the Speech Department with the President's home on the second floor.

The Chapel Theatre, an attractive stone building with a seating capacity of four hundred, is used for concerts, dramatic presentations, and lectures.

New Science Building-Planetarium, completed in 1967, provides outstanding, modern facilities including classrooms, laboratories and offices for the departments of Physical Science, Biological Science, Mathematics, and Geography. A 250-seat science lecture hall and a planetarium with a radius of 40 feet are housed in a connecting wing to the main building. The Computer Center-Data Processing Laboratory is on the ground floor.

The Harvey Gymnasium was named for Frank Laird Harvey, a Trustee of the College from 1911 to 1932. The building is provided with gymnastic equipment of various kinds, recreation rooms, and offices. The ground floor includes snack bar facilities and a large commons room.

Gymnasium-Natatorium is a new physical education plant which was completed in 1967. It provides classrooms, physical education teaching stations and offices. The 3600-seat arena accommodates spectator facilities for varsity sports and intra-mural competitions. The natatorium includes a diving pool and swimming pool for instructional programs, varsity sports, intra-mural competitions, and recreation.

Fine Arts Center-Auditorium is the next major building to be completed. Occupancy of the building by the College should occur in 1968-69. The Art, Music and Speech-Drama departments will be located in modern, attractive classrooms, studios, laboratories, exhibit areas and rehearsal facilities. The auditorium with a capacity of 1700 seats will accommodate concerts, lectures and a wide variety of additional cultural events.

Student Center to be located in the Wood Street-Ninth Avenue area will offer attractive lounge and recreational facilities, snack bar, book store.

Administration Building will be located in the Main Street-Ninth Avenue area. It will provide offices for the President and his staff, Dean of Academic Affairs and staff, Registrar, Admissions Office, and the Business Office.

Research-Learning Center will be located at Greenville Avenue and Thorn Street. It will provide experimental educational laboratories for research with pre-school, K-12, and post-school groups. The educational research specialists will provide college and regional services for research projects, implementation programs, and educational consultative assistance.

Chandler Dining Hall was named for Dr. Paul G. Chandler, President Emeritus of the College. Modern in design and equipped with the latest food preparation and serving facilities, it provides an attractive and comfortable dining environment.

Ballentine Hall, residence for young men, was named for Professor John Ballentine, who was a teacher and at various times acting president of the College from 1887 to 1920. Located on Wood Street, it provides housing for 116 students.

Becht Hall, residence for young women, was named for J. George Becht who was president of the College from 1904 to 1912. Located on Wood Street, it provides housing for 200 students. It is scheduled for replacement with a new dormitory for women.

Lorena Given Hall, residence for young women, was named for Lorena M. Given who taught at the College from 1893 to 1919. Located on the east side of the campus, it provides housing for 250 students.

Ralston Hall, a residence for young women, was named for Mrs. Amabel Lee Ralston, who was Dean of Women at the College from 1922 to 1930. Located adjacent to Given Hall, it provides housing for 200 students.

Men's Dormitory, planned for construction in 1967-68 and located on Main Street, will provide housing for 450 students.

Women's Dormitory, planned for construction in 1967-68 and located on Main Street, will provide housing for 450 students.

Men's Dormitory, planned for construction in 1968-69 and located up-hill from the two preceding dormitories, will provide housing for 450 students.

VENANGO CAMPUS

Clarion State College operates an off-campus center located in Oil City, Pennsylvania. Clarion's Venango Campus is a tribute to the civic spirit of the people of the Oil City area who supported and financed the venture. The Campus is located on a sixty-acre wooded area on West Front Street overlooking the Allegheny River.

Staffed with full-time faculty members of Clarion State College, Venango Campus offers students a convenient, inexpensive opportunity for two years of their college education. Courses offered at the branch campus in both teacher education and the liberal arts are identical with those offered on main campus.

Venango Classroom Building is an attractive, modern building containing classrooms, laboratories, library, recreational room, and college offices.

Residence Hall accommodations located on the Venango Campus provide housing for 105 women students and 105 men students. A dining hall is included in the building.

STUDENT AFFAIRS

Clarion State College provides not only for the academic training of young men and women, but also for their all-around development as mature, self-confident, socially competent adults. All campus facilities, including residence halls, dining halls, social centers, and other places where students meet and live, are organized and used as means for helping students toward cooperative, democratic living.

To help ensure this development, certain student personnel services are provided. These services enable those enrolled at Clarion State College to perform more adequately as students and to derive maximum benefit from the academic, cultural, social, and recreational opportunities offered by the campus environment. In addition, every administrative and teaching member of the faculty is charged with the responsibility of assisting students to make a wholesome adjustment to college life.

Student activities represent an important phase of student-faculty association and of social and recreational experience. Campus organizations provide a program in which each student may engage, according to his individual interests, in activities which meet his own needs and desires.

Clarion State College students have a voice in forming and administering college policies by serving with faculty members on many standing committees. Through student government, students exercise direct control over most phases of student life.

STUDENT PERSONNEL SERVICES

Housing Services

Students at Clarion State College live in residence halls, fraternity houses, approved homes in town, or their own homes. Freshman and sophomore men and all undergraduate women are required to live in the residence halls unless commuting from their homes. Upon written application to the Dean of Men or Dean of Women, exceptions to this policy may be granted.

It is the desire of the college to have students representing all creeds, races, and ways of life living in the college residence halls. In order to achieve this and, at the same time, comply with the Pennsylvania Fair Education Practices Act, all housing assignments are made without regard to race, religion, color, ancestry, or national origin. Within each residence hall, there is a cross section of students representing most aspects of the highly divergent student body, thus providing a cosmopolitan community. In this community, the student is exposed to living and working with all types of people. Students are permitted to make their own choice of room and roommate and are encouraged to do so. New students, however, do not

usually have an opportunity to meet many of their future classmates, so the college makes an effort to assist such students in obtaining congenial roommates. Preferences stated on housing applications are given consideration in making assignments and are honored whenever possible. Once rooms are assigned it is difficult to make a change, and as a rule, changes will be made only at the close of a semester.

The rental contract period for the assignment to college residence halls, including privately owned halls, is for the entire academic year unless the student withdraws from college or graduates prior to the end of the year. Housing and food service fees are payable quarterly in advance and at the same time as other college fees become due. Refunds cannot be made unless the student withdraws from college for medical reasons properly certified by the attending physician. A separate housing and food service application must be submitted for each year.

Housing and food services are provided only on a combined basis for students living in the residence halls. Housing and food service contracts may not be transferred or assigned. The meal ticket may be used only by the student to whom it is issued, and a room may be occupied only by the student to whom it is assigned.

Student rooms in the residence halls are furnished with beds, desks, chairs, bureaus, and closets. The college provides pillows, pillow slips, and sheets. Students should plan to furnish blankets, study lamps, towels, washcloths, and soap. Many students also provide curtains, dresser scarves, bed spreads, and small throw rugs. Radios and record players are permitted if they are operated with due consideration for others. Other acceptable electrical appliances include razors, hair dryers, and clocks.

General residence hall rules and regulations are contained in the Student Handbook; in addition, specific rules applicable to individual residence halls will be made available to each resident when he moves into a hall. Current rules and regulations have been established and are enforced by the governing board of the Association of Women Students and by the House Councils of the men's residence halls.

A list of approved rooms in town is available upon request in the Office of the Dean of Students. Students not living in the residence halls or commuting from their homes are required to select rooms from this approved list and to make all arrangements for rental with the householder.

Automobile Regulations

All provisions of the Vehicle Code of the Commonwealth of Pennsylvania as supplemented by College Regulation will be strictly enforced on the Clarion State College Campus. Final authority for such enforcement is governed by the Office of the Dean of Students, through the Office of the Director of Security.

All students who possess, maintain, or operate a motor vehicle, (including a motorcycle, motor bike, motor scooter, and any other

motor driven vehicle) shall register such vehicle annually with the Office of the Director of Security. Registration must be completed during the academic registration period.

All students are expected to abide by the following regulations:

1. Except for commuting students, only seniors are permitted to register or operate a motor vehicle while attending Clarion State College.
2. Students eligible for campus parking privileges will be issued a decal indicating that this privilege has been granted and will be assigned to a specific parking area.
3. Any student acquiring the use of a motor vehicle after the regular registration period must register the vehicle within twenty-four hours with the Office of the Director of Security.
4. Automobiles which are frequently in use on campus must be registered although their use may be intermittent rather than regular.

Food Service

Wholesome well-balanced meals are provided in Chandler Dining Hall by Servomation-Mathias Company. All students living in resident halls are required to eat their meals in the Dining Hall. Students not living in residence are invited to eat their meals in Chandler Hall on a semester contract basis, a weekly basis, or occasional meals. All students on the semester contract must continue for the entire semester unless they leave the college.

Rates for dining are as follows:

Semester plan—\$162.00

Weekly (payable to Food Service Manager)—\$9.00

Per Meal (payable to Food Service Manager)—

Breakfast—\$.60

Lunch—\$.85

Dinner—\$1.25

Health Services

Recognizing that health is a basic objective of education, the college provides for the protection and development of the health of its students. An infirmary, located on the first floor of Egbert Hall, is staffed with resident nurses and offers medical service on a 24-hour, 7-day basis. Five double rooms are available for in-patient service.

The college physician holds office hours for out-patient service between 9:00 A.M. and 10:30 A.M., Monday through Friday. Additional visits to infirmary patients are made as required. When ill, students are expected to make every effort to visit the infirmary during regular clinic hours.

Infirmary service and privileges are available to all full-time students; however, neither the college physician nor nurses can make house calls. Students should come to the infirmary for treatment whenever possible. A Parental Permit form must be on file in the

infirmary before a minor student can be treated by the staff of the Health Service.

Medical services in addition to routine infirmary treatment or drugs and medicines not normally stocked by the infirmary are readily available within the community of Clarion; however, the student is responsible for any expense incurred. If hospitalization or treatment beyond the capabilities of infirmary facilities or equipment is indicated, parents will be contacted immediately in order that their wishes may be known. In any cases requiring transportation to a hospital, an ambulance will be used at the expense of the individual involved.

Student Insurance

In order to ease the financial burden which could result from serious or extended illness or injury, Clarion State College requires all students to participate in a group insurance plan which covers the student from the day college opens until the end of a college year. A waiver privilege will be extended to those students who have private coverage. A policy may be taken for a full twelve months instead of for the college year, if a student desires.

Following are the essential provisions of the plan, which are incorporated into a control policy held by the college:

Accident—Reimbursement will be made up to \$5000 for each accident whether the accident occurs at college, at home, while traveling, or while participating in intramural sports or intercollegiate athletic activities, and for expenses including X-rays; hospital bills; nurses', physicians', and surgeons' fees; laboratory costs; medicines; and, in fact, any medical expense incurred as a result of an accident. Reimbursement for injury to natural teeth is limited to \$200.00.

Illness—Reimbursement, not to exceed \$1000.00 for each illness, will be made for actual medical expenses related to illness contracted and treated during the period for which the student is insured. Expenses include but are not limited to X-rays; laboratory examinations; hospital bills; nurses', physicians', and surgeons' fees; medicines; and surgical appliances.

Counseling Services

The Counseling Center offers professional counseling regarding educational, vocational, personal, social, and emotional problems. The services of the Counseling Center are available at no charge to all regularly enrolled Clarion State College students.

Most students request counseling on their own initiative. Some, however, need encouragement from others to seek counseling assistance. These students may be referred by instructors, academic advisors, residence hall staff, administrators, parents, or fellow students. Those in need of counseling services are not just the marginal or immature students; frequently the exceptionally able and con-

scientious students reap the benefits of professional help in the counseling setting.

The counselor's primary loyalty is to the student. The content of counseling interviews is confidential. Only by the student's request may the counselor share this information with other professional personnel.

For students who exhibit need of psychiatric evaluation and/or therapy, the Counseling Center maintains a referral service with the Venango County Mental Health Center in Oil City.

Many members of the faculty and staff call upon the counseling service to discuss severe student educational and adjustment problems. Consulting services enable a maximum number of students to have the advantage of the "expertness" of the Counseling Center personnel in an efficient and expedient manner.

Placement Service

The College Placement Service assists both teacher education and liberal arts graduates in obtaining positions for which their college program has qualified them. Vacancy notices are received from public schools, government agencies, business and industry and are relayed to those who are registered with the Placement Service. Assistance is given college students and personnel officials in arranging for employment interviews. Placement credentials are prepared and distributed to support the candidacy of registrants. Students' competence in their areas of specialization, their conduct, and their general demeanor are presented in a professional manner by the Placement Service for review by prospective employers.

The Placement Service is a free service. Graduates of former years are served, as well as current seniors, and all are urged to maintain their contacts with the Placement Service as a means of facilitating professional promotion.

Counseling and guidance in placement are provided for all registrants. Students are encouraged to call personally at the Placement Office. Following graduation, placement matters are handled by telephone communication or mail.

All communications should be addressed to the Director of Placement.

STUDENT ACTIVITIES

Student activities at Clarion are viewed as another means of self-development; therefore, the responsibility for the success of any activity or organization must rest with the students involved. As a result of this policy, ample opportunity exists for gaining experience in leadership and self-government.

Student Government

Through participation in student government, students have an opportunity to gain experience in democratic living and self-govern-

ment. All students become members of the Clarion Students' Association upon their initial enrollment at Clarion and, thereby, eligible to participate in the election of the Student Senate, governing body of the Association. The Student Senate serves as a coordinating body for student activities and a means of communication between students and faculty and administration.

Student Senate is responsible for expenditure of student activity fees through allocations to the various activities and organizations. The Senate has a less direct, nevertheless important, relationship to other Association operations such as the College Bookstore and the Student Union Snack Bar. It confirms nominations of student representatives to various standing committees of the college made by the President of The Clarion Students' Association.

Other opportunities for self-government are provided through the governing boards of the Association of Women Students, Panhellenic Council, Inter-Fraternity Council, the Day Students' Association, the Student Union Board, and residence hall councils and boards.

Each year, prior to the opening of college, a group of students who have shown actual or potential leadership qualities through their participation in student affairs and election to leadership positions are invited to return to the campus to participate in a **Leadership Training Program**. This Program is sponsored by the Office of the Dean of Student Affairs and the Student Senate.

Leadership Training has as its basic purpose the development of positive student leadership. It also is planned to give potential leaders an opportunity to discuss various methods of leadership and to gain a working knowledge of the tools of leadership.

The full utilization of this leadership is a very necessary ingredient of success in any college or university, and the maximum development of the leadership potential of each student must be considered an important part of the educational process. It is a well-established fact that even though a college may have an excellent faculty and physical plant, it cannot attain true excellence unless it also has a capable and energetic student body able and willing to accept the responsibilities inherent in leadership.

Athletic Program

Intercollegiate athletic competition plays an important role in the lives of Clarion State College students. Clarion State College is affiliated with both The National Collegiate Athletic Association and the National Association of Intercollegiate Athletics. The present athletic program includes representatives of varsity and freshman teams in football, basketball, baseball, wrestling, riflery, golf, tennis, and track. Plans are developing to add swimming, gymnastics, cross country, and soccer to the existing program.

Facilities for intercollegiate athletics include the new Memorial Stadium dedicated in 1965. The Stadium will seat approximately five thousand spectators for football and track and has dressing rooms for

varsity and freshman teams in football, baseball and track with visiting team dressing, shower, and locker rooms. The football field is enclosed with an all-weather track. The facility also includes the baseball diamond and field, practice football fields, and parking areas for approximately five hundred cars.

Harvey Gymnasium is continued in use for basketball and wrestling. A new gymnasium and natatorium is under construction and should be available for winter and spring activities during the 1967-68 academic year.

Intramural athletics are provided for men and women students by funds from Student Activity fees allocated by Student Senate. The program is planned and supervised by the Physical Education Department.

Intramural athletics for women provide for participation of all women students in many forms of athletics including soccer, volley ball, basketball, softball, tennis, riflery, archery, golf, hiking, skiing, badminton, shuffleboard, and table tennis.

Intramural competition for women is sponsored by the Women's Athletic Council, an organization composed of women who have attained eligibility through a sports point system. The Intramural Program furnishes an opportunity for officiating as well as playing. Coaching advantages offered in this way have helped some girls with summer camp problems in the techniques of directing sports. The purpose of the program is not only to provide recreation for women students but to make it functional in the life of the individual in school and after graduation.

Intramural athletics for men provide men with opportunities to participate in individual and team sports including touch football, basketball, softball, soccer, volley ball, bowling, badminton, handball, table tennis, horseshoes, skiing, tobogganing, archery, riflery, shuffleboard, and hiking.

Varsity "C" Club. The Varsity "C" Club is made up of men of the College who have earned the "C" in one of the intercollegiate sports. Awards presented to all members are provided by the club.

The objectives of this club are to aid in the maintenance of pleasant relationships with other colleges and in the promotion of a high standard of conduct by members of the athletic teams.

Cultural Program

In addition to full utilization of the numerous performing groups composed of members of the student body and faculty, the Clarion State College Students' Association each year presents a series of performances by nationally known personalities and organizations. This series is arranged by the Cultural Affairs Committee, a sub-committee of the Student Affairs Committee of the College composed of an equal number of student and faculty representatives.

Music Program

Clarion State College Concert Choir. Membership in the Concert Choir is by audition only. Auditions are held at the beginning of each semester, and membership is open to any student who can satisfactorily pass the audition examination. The Concert Choir has a long and distinguished history as a performing group. The annual spring tour takes the choir to churches and high schools throughout Western Pennsylvania, where it presents both sacred and secular programs of the finest choral literature, from the early Polyphonic Period to works by contemporary composers. In addition, the Concert Choir serves the college campus by presenting major works such as the **Creation** by Haydn; the **Messiah** by Handel; the **Elijah** by Mendelssohn; and the **Requiem Mass** by Cherubini. Selected members of the choir have sung in the production of **John Brown's Body** by Stephen Vincent Benet; **Amahl and the Night Visitors** by Gian-Carlo Menotti; and the musicals, **Brigadoon** by Lerner and Lowe, and **Can-Can** by Cole Porter. Rehearsals are held three times each week.

The Madrigal Singers is a highly select group made up of advanced students who possess the technique and voice which are vital to this specialized area of music. This group is a flexible one and varies in number from twelve to sixteen voices, depending upon the compositions to be performed. The literature presented by the Madrigal Singers represents some of the finest music ever written for voice. Madrigals, glees, airs, and anthems by Byrd, Weelkes, Wilbye, Dowland, Vecchi, and Caccini form a large part of the repertoire. The Madrigal Singers perform only on special occasions and for selected groups. In addition, the Singers present an annual concert in the College Chapel. Membership is by audition only.

Marching Band. Ranked as one of the finest college bands in Pennsylvania, the Clarion State College Marching Golden Eagles are continuing their traditionally outstanding musicianship and marching finesse, as the membership has increased from 35 to 80 students. This year's jump to 80 was aided by a \$10,000 allocation from the Clarion Students' Association to buy 100 new blue and white band and majorette uniforms.

The ideals of the band are geared first to develop musicianship and marching precision; second, to inspire and encourage academic achievement; third, to develop character; and fourth, to develop outstanding leadership ability.

The fall season is one of the most spectacular and interesting times for the band members. The Golden Eagles play for all football games, four of which are usually at home. Besides presenting pre-game shows and playing in the stands, the band also performs snappy marching routines coupled with quality sound at halftime. The Clarion Stater's always look forward to the sight of the long blue line bursting from beneath the goal posts at a lively clip playing the new fight song "Carry on for Clarion."

To prepare for its fall performances in the gridiron, the band meets three times weekly and on Saturday mornings of home games. In addition, the Marching Golden Eagles also participate in the annual Clarion Autumn Leaf Festival as well as in other parades in the area. The band was honored this year when it was invited to play in the inaugural parade honoring Governor Raymond P. Shafer in Harrisburg.

Future plans for the Marching Band include a band program each year during football season and an increase in membership to 96. A band camp to be held before the opening of football season is also in the planning stage. Here the band members will familiarize themselves with the music and precision drills to be used for the football games.

Membership is open to all students of the college. Students who qualify academically and musically may arrange an audition for the band at any time during the school year.

Concert Band. Soon after the close of football season, the marching band is transformed into the Clarion State College Concert Band. Meeting three times weekly for a total of four and one half hours, the band members begin preparing for the annual Spring Concerts and Spring Tour. This year the band will play for the annual Mother's Day Concert as well as the annual Spring Concert. Featured at the Spring Concert are guest clinicians and soloists. In the past Clarion has hosted James Burke, Rafael Mendez, Bob Lowry, Roy Burns, Frank Arsenal, and Warren Covington. This year the band is traveling to the Harrisburg area where it will perform concerts for the local schools.

Flexibility and musicianship mark the programs of the Clarion State College Concert Band. Its musical and educational objectives are to perform literature of the highest aesthetic value, with an emphasis on original works for band, and to attain perfection in balanced playing ability through rigid requirements for individual musicianship and advanced playing technique.

The band's extensive, varied, and flexible repertoire is selected from all periods and styles of composition and is designed to meet a variety of program responsibilities.

While enhancing institutional spirit and character, the College Band is a serious and distinctive medium of musical expression and is of vital service and importance to its members, its institution, and its art.

There is no music scholarship program or music major program in effect with regard to the College Bands; thus it is apparent that those who participate in the Marching and Concert Bands do so because of their willingness to give of their time and talents and for what the Band has to offer other than scholarship assistance or vocational preparation.

Dance Band. The Clarion State College Dance Orchestra, a highly

select group of 15 players plus a vocalist, furnishes music for many social functions at the college and other community affairs.

As in the marching and concert bands, membership is attained by audition only.

Each year the Dance Orchestra appears at the Chamber of Commerce Banquet and provides the music for many high school proms in the area.

Woodwind and Brass Ensembles are organized, depending on the talent and instrumentation which are available. Membership in these groups is voluntary.

Publications Program

The Clarion Call is the weekly College newspaper. Published by the Clarion Students' Association, it follows regular newspaper style and format. Staff participation is essential for students with an interest in entering journalism, journalism education, or publications' advisement. Prior experience in journalism is helpful but certainly not essential for success. Certain editorial and business positions may receive financial remuneration.

The Clarion, which is published under the guidance of the English Department, presents a channel of creative communication for those students whose interests and talents are in this area. This publication is the culmination of the year's best in creative writing by Clarion State College students.

The Sequelle is the College yearbook. The staff is made up of students from all classes and curricula and truly represents all interests on campus. Staff membership is invaluable to the student who plans to teach, advise, or work in this area of journalism. Professional help is available to the staff as they plan, write, and create the book. Certain editorial positions may receive remuneration.

Alpha Phi Gamma is the national, honorary journalism fraternity. Student members are chosen from the staffs of the **Clarion Call** and the **Sequelle** and are elected to membership for outstanding contributions made to journalism at Clarion. In addition, meetings with recognized professionals who are honorary members or guests at fraternity affairs provide important professional contacts in the field.

Religious Program

The Newman Club is a co-educational organization which provides for the spiritual and cultural heritage of Catholic students. Its activities are guided by the National Federation and the Regional Province of Newman Clubs, to which the chapter on the Clarion Campus belongs.

The Student Christian Association holds weekly meetings on Wednesday evening. The students plan and conduct their own meetings. Each semester, the association holds a reception for new students.

Social Program

The purpose of the extensive and varied activities program is that of making the students' college life richer and more enjoyable. The social functions are financed from allocations from student activity funds made by the Student Senate and managed by the Social Committee, a sub-committee of the Student Affairs Committee consisting of an equal number of students and faculty representatives.

Among the major events of the year are the Cook Forest Picnic, Christmas Dance, Homecoming, Greek Weekend, Spring Carnival, and the Spring Prom. Movies and either record hops or combo dances are held almost every week. During the year coffees, receptions, teas, banquets, luncheons, and special dinners are held. These social events are held in resident hall lounges, Chandler Dining Hall, the Student Union, and Harvey Gymnasium.

The **Student Union**, located in the Harvey Gymnasium building, has been in operation since 1962. This facility was developed for the use and convenience of the college community and provides a meeting place for many social activities of the college.

Lunches and other refreshments may be purchased from a snack bar located in one room of the Union. The Union, including the snack bar, is open from 7:00 A.M. to 11:00 P.M. Monday through Saturday and from 5:00 P.M. to 11:00 P.M. on Sunday.

Greek Letter Social Organizations offer an enhancement to life outside the classroom for those students who accept the responsibilities involved in membership.

Sororities provide an opportunity for women students to develop close friendship within a group whose aims are common to their own. They promote scholarship, cultural interests, service projects, and participation in campus activities. The national sororities are Alpha Sigma Alpha, Alpha Sigma Tau, Delta Zeta, Sigma Sigma Sigma, and Zeta Tau Alpha.

Panhellenic Council is the advisory governing board for all Clarion State College sororities. The council promotes cooperation and coordination of activities and standards between sororities and between sororities and fraternities. Two representatives from each of the five sororities on campus compose the membership of the Council. Two major social activities planned jointly by Panhellenic and Inter-fraternity Councils are the Greek Sing and the Inter-fraternity Council-Panhellenic Dance.

Fraternities. Chapters of six national fraternities, Alpha Chi Rho, Phi Sigma Epsilon, Phi Sigma Kappa, Sigma Tau Gamma, Theta Chi, and Theta Xi, are located on the Clarion Campus. Two local groups, Alpha Gamma Phi and Gamma Delta Iota, also contribute to the social program. Members of several of these organizations live in chapter houses located near the college campus.

Inter-Fraternity Council is the governing organization and is composed of representatives of the eight fraternities. Under the provisions of its constitution, it is responsible for the coordination of fraternity programs, pledging activities, and the arbitration and adjudication of violations of college and fraternity regulations. In addition, it works actively with the Panhellenic Council to enhance the position and welfare of all Greek letter organizations on campus.

Speech and Dramatics Program

Pi Kappa Delta is a national honorary society in forensics. Clarion students attend thirty to forty debate tournaments a year and have traveled as far as Tacoma, Washington, and New Orleans, Louisiana, to take part in intercollegiate competition in debate, oratory, and extemporaneous speaking. Active team members earn the right to membership in Pi Kappa Delta.

Oral Interpretative Reading Guild members are interested in the oral reading of literature for an audience. The Guild provides training in the analysis of literature; the appreciation of literature as a "total work of art"; and training in the communication of literature via facial, vocal, and bodily expression. Participation in intercollegiate festivals and appearances before civic, cultural, and educational groups are among the activities of the Guild.

Alpha Psi Omega is a national honorary dramatics fraternity. Alpha Upsilon is the local chapter of Alpha Psi Omega at Clarion. In order to become a member of the fraternity, a certain number of points must be obtained through work with the College players.

College Players. The campus dramatic organization is known as the College Players. Opportunities for gaining experience in the various phases of play productions are afforded through the participation in the four major productions, two studio productions, and the student-directed one-act plays which are publicly produced at Clarion. There is also a Summer Theatre which offers five productions each Summer.

The Players Studio is an organization which is devoted to the production of contemporary or experimental drama. Following each performance a panel discussion concerning the play and the production is held.

Professional Organizations

Bios Club is organized for biological science majors. Guest speakers from the Conservation Department, Fish and Wild Life, Forestry Department, professors from other colleges, and field trips are all part of the program designed to enrich the background of this natural science group.

The Clarion State College Archaeological Association provides students with an opportunity to participate actively in current field research. Established in 1964, the organization sponsors field trips, lectures, films, exhibits, and museum visits in addition to actual field

excavations. Membership is open to all Clarion State College students interested in archaeology. Bi-weekly meetings are held during the spring, summer, and fall. The field program is part of the upper Allegheny archaeological survey conducted in conjunction with the State Archaeologist's office in Harrisburg and the Carnegie Museum of Pittsburgh.

The Clarion State Students Civil Liberties Union is an extra-curricular organization maintained for the purpose of benefiting all students. The Union is concerned with the civil liberties of the individual college student and the processes by which they are guaranteed.

Sigma Alpha Eta is a national honorary fraternity for students majoring in speech pathology and audiology. Membership is open to students with an interest in these areas, as well as to those who seek professional training in the field. Its objectives are to create and stimulate an interest in the fields of speech and hearing science; to encourage professional growth; to foster a spirit of unity by coordinating the interests and efforts of persons with a common goal by offering opportunities for social and professional fellowship; to provide situations in which students and faculty may work together to advance the profession as a whole; to aid in public relations with other college departments and with local organizations interested in learning about the profession.

Student Pennsylvania State Education Association seeks to develop and cultivate such desirable professional qualities as leadership, character, and scholarship among prospective teachers engaged in their pre-service preparatory work. Its purposes are exploratory, prevocational, and character forming, and its members can gain useful knowledge of the opportunities and requirements related to the teaching profession. The organization is unique in that it has the possibility of providing active participation in local, state, and national education associations. Membership is encouraged for college students in all curricula.

Through the S.P.S.E.A., the prospective teacher cultivates qualities of personality and character, develops enthusiasm for and loyalty to his chosen vocation, and acquires a sense of professional vision. Student members receive each month the journals of state and national education associations.

Alpha Mu Gamma is the National Collegiate Foreign Language Honor Society. Membership is open to outstanding students in French, German, Spanish and Russian, whether or not they are actually specializing in a foreign language. Each spring the society seeks to foster international friendship and understanding by celebrating National Foreign Language Week, during which various special events are scheduled.

Service Organizations

Circle "K" Club is a men's organization sponsored by the Kiwanis Club of Clarion. The purpose of the club is to provide service to the

college. Activities have included ushering at Concert-Lecture programs, assisting the American Red Cross during Bloodmobile visits to the campus, and sponsoring an annual dance. Any male student may join this club.

Waiters' Club is made up of student waiters and waitresses. The main function is to provide improved service to students in the College Dining Room. The club also sponsors two dances and a talent show held in the dining hall during each academic year. These events are open to all students.

GENERAL INFORMATION

Accelerated Program

Students who take three summer terms of twelve weeks each may finish the four-year course in three years.

Correspondence Directory

Academic Affairs, Courses, Curricula

Dean of Academic Affairs

Admissions

Director of Admissions

Alumni Affairs

Alumni Secretary

Business Affairs, Fees, Refunds

Business Manager

Student Affairs, Organizations, Activities

Dean of Students

Summer Classes

Director of Summer Sessions

Transcripts and Records

Registrar

Address for all above named officials:

Clarion State College

Clarion, Pennsylvania 16214

Course Numbering

Courses numbered below 100 are usually of remedial nature.

Courses numbered 100 to 199 inclusive are primarily for Freshmen; 200 to 299 for Sophomores; 300 to 399 for Juniors; and 400 to 499 for Seniors. Courses numbered above the student's level may be taken with approval of the department head.

Courses with numbers ending in 10 to 19 inclusive are General Education and those ending in 20 to 29 are Professional Education.

Courses with numbers ending in 30 to 49 inclusive are primarily for students in Elementary Education and those ending in 50 to 69 are intended for majors in other fields.

The college reserves the right to change the sequence and numbering of courses.

Evening Classes

Evening classes are organized each semester for the convenience of regular students, in-service teachers, and others who may be interested in college courses. Work done in these courses gives customary college credit and may be applied toward a degree. Information concerning course offerings may be secured by writing to the Dean of Academic Affairs.

Student Responsibility for Academic Program

Each student is individually and personally responsible for learning the requirements of the curriculum which he is following and for seeing that these requirements are scheduled and completed for graduation.

Study Year Abroad in Basel, Switzerland

Clarion State College as a member of the Regional Council for International Education with its Secretariat located at the University of Pittsburgh affords the student an opportunity to study abroad during his junior year. Courses include the disciplines of history, political science, sociology, art, economics, literature, and language. Consult the Liaison Representative of the Regional Council for further information.

The Summer Session

The Summer Session is maintained for the benefit of regular college students as well as for teachers in service. By taking advantage of the summer sessions, teachers can secure the professional training needed to meet the requirements for standard certification. Advanced courses are offered in the summer sessions for the benefit of teachers who desire to secure credits toward a degree in education or for permanent certification. Workshops are being added for those interested in special problems in education. Library Science certification may be added in three summers and Highway Safety in one summer. Liberal Arts courses are also part of the summer schedule.

Clarion is attractive to those who desire to combine work with recreation during the summer. The high elevation provides a pleasant climate, and the area offers opportunities for boating, swimming, hiking, riding, and other outdoor activities.

The Pre-summer session lasts three weeks, from June 3 to June 21. The Regular Summer Session of 1968 will open on June 24 and close on August 2. The Post-Session includes the three weeks from August 5 through August 23.

Veterans' Affairs

Clarion is approved by the Veterans Administration to offer the regular degree curricula to veterans and children of deceased veterans.

Credit for educational experience in the Armed Services is allowed

on the basis of the recommendations of the American Council on Education.

Veterans seeking information should consult the Dean of Academic Affairs.

ADMISSIONS

Admission of Freshmen

In accordance with the principles governing admission adopted by the Board of State College Presidents, five general requirements have been set up for admission to State Colleges:

1. General Scholarship
2. Character and Personality
3. Health and Physical Vigor
4. College Entrance Examination Board Tests
5. A Personal Interview

Applicants for admission must satisfy the following requirements as outlined in detail below.

1. General scholarship as evidenced by graduation from an approved secondary school or equivalent preparation as determined by the Credentials Evaluation Division of the Pennsylvania Department of Public Instruction. The applicant must submit scores earned on the Scholastic Aptitude Test administered by the College Entrance Examination Board. Arrangements for taking these examinations are to be made through the high school guidance counselor.

2. Satisfactory character and personality traits as well as proper attitudes and interests as determined by the high school principal, guidance director, or other school official acquainted with the student.

3. Health and physical condition as evidenced by a health examination by the student's family physician reported on the official form and approved by the college physician. No student shall be admitted to the teacher education program who has, in the opinion of the college, disabilities which would impair his service as a teacher.

4. Satisfactory personal and social qualities as determined by a personal interview with the applicant.

5. For admission to special curricula the college may require the applicant to take an appropriate aptitude test in the special field in order to obtain further evidence of ability to succeed in the chosen area.

Admission With Advanced Standing

Applicants transferring from other institutions will not be accepted without official transcripts of credit and certificates of honorable dismissal. All applicants are required to have an interview with a member of the Admissions Staff prior to the opening of the semester in which they wish to enter. A transfer student must have a minimum of one year's residence (30 semester hours of credit) to qualify for a degree from Clarion.

Credit will be given for acceptable courses pursued in accredited collegiate institutions in which the student has made grades of A, B, or C. Where the grades are marked on a percentage basis, work graded five per cent above the minimum passing grade will be accepted. Passing grades of "D" in other institutions will not be accepted. Course grades transferred from other institutions do not affect the quality point average a student earns at Clarion.

Teachers in service may complete in extension courses not more than 25 per cent of the courses required for an undergraduate degree.

Applicants who are not graduates of an approved four-year high school must have their credits evaluated by the State Department of Public Instruction, Harrisburg, Pennsylvania. Applicants who need this type of evaluation should consult the Registrar of the College. This regulation applies to teachers in service.

All persons who were graduated from a State Normal School prior to September, 1920, and who have a four-year secondary school education will be granted no more than 64 semester hours of credit toward a degree for their normal school work.

No credit for public or private teaching experience, previously credited as high school equivalent or as equivalent professional credit toward graduation from a two-year curriculum, shall be granted toward meeting the requirements for entrance to or graduation from the four-year curriculums.

In accordance with a state regulation a maximum of six semester hours of credit may be completed in one semester while a person is engaged in full-time teaching.

No credit is given for correspondence work taken after September 1, 1927, except that pursued through the United States Armed Forces Institute or similar service organizations.

Admission of Freshmen in September, 1968

Applicants for admission to the freshman class in 1968 should read and observe carefully the following procedure:

1. Come or send to the Admissions Office of the College for the forms necessary in making application for admission. There are three of these: (1) the application and personnel record blank, (2) the report of the medical examination, and (3) the report from secondary school officials.
2. Send the personnel record to the College along with an application fee of \$10.00, payable to the Commonwealth of Pennsylvania. This fee is not refundable. Have the examining physician send the medical examination record to the College. The secondary school record will be sent directly to the College by the principal or other official of the secondary school.
3. Have a personal interview with an official of the college. The Admissions Office of the College is open between the hours of

- 9:00 A.M. and 4:00 P.M., Monday through Friday, and from 9:00 A.M. until 12:00 Noon on Saturday.
4. Have the College Entrance Examination Board send your Scholastic Aptitude Test scores. All liberal arts applicants who have taken a language in high school and all secondary education applicants who intend to major in a foreign language must arrange to take the achievement test in the language of their choice administered by the College Entrance Examination Board. These tests are required for admission. Arrangements to take them may be made through the high school counselor.
 5. Clarion State College Applicants may ask for a decision as early as July 1 following their Junior year. This would require the applicant to have taken the Scholastic Aptitude Test in the Junior year.
 6. A registration fee of \$25.00 must be paid when the applicant receives notice of approval of his application for admission. This fee is not refundable.

WITHDRAWALS

All class withdrawals must be made through the office of the Dean of Academic Affairs. Classes from which a student withdraws during the first two weeks of a semester will not appear on his record. Withdrawals between the end of the second and sixth weeks may be made without penalty. After the beginning of the seventh week of a semester or during the second half of a summer session, a course from which a student withdraws and in which a grade of "E" is reported at the time of withdrawal shall be finally reported as a failure. If a withdrawal is not made through regular channels a failing grade will be entered for that course.

Voluntary withdrawals from individual classes after the ninth week of a semester will result in an automatic "E" for the course. Exceptions will be made for extenuating circumstances such as absence due to illness or some other emergency.

Any student who withdraws from the college either during or at the end of a semester must notify the Dean of Academic Affairs of his intention to withdraw and the reason for withdrawal. This is necessary for completion of the student's permanent record. Failure to comply with this regulation will constitute an unofficial withdrawal and may affect the student's chances of future readmission or his obtaining an honorable dismissal.

SCHOLARSHIP REQUIREMENTS

Student progress is reported twice each semester. At the end of the first six weeks, each staff member submits to the Registrar a report of all students doing unsatisfactory work in his classes. These reports are recorded and then passed on to the advisers who give them to the

students. The advisers take this opportunity to analyze with the students any problems they may have and to help them improve their study habits or correct other difficulties which may have contributed to their low scholarship.

Grading System

- A indicates superior attainment.
- B indicates attainment above average.
- C indicates average attainment.
- D indicates attainment below average.
- E indicates failure.
- Inc indicates incomplete work.
- W indicates withdrawal from a course.

Inc (Incomplete) is not used unless a student has been in attendance through a semester or session. It indicates that the work of a student is incomplete and that the final grade is being withheld until the student fulfills all of the requirements of the course. It is used only when conditions and circumstances warrant and when evidence is presented to justify its being given.

All incomplete grades must be removed by the end of the following semester or they become failures.

Scholarship Requirements

Scholarship policy at Clarion State College is administered by the Committee on Academic and Professional Standing, which is a subcommittee of the Faculty Senate.

Scholastic standing of students is determined on the basis of a quality point system in which a grade of "A" equals 4 quality points per semester hour; "B" equals 3; "C" equals 2; "D" equals 1; and "E" equals 0. The number of quality points earned in a single course for one semester is determined by multiplying the quality point value of the course grade by the number of semester hours in the course; thus, a grade of "A" in a three semester hour course has a quality point value of 12. A student's quality point average at any specific time is determined by dividing the total number of quality points earned in all courses by the total number of semester hours of credit attempted. For example, if a student earns a total of 30 quality points from 15 semester hours of course work in a single semester, his quality point average for the semester is 2.00.

At the end of each semester, a student's quality point average is calculated for that semester and also for all the course work he has taken up to and including the semester just completed. The latter is known as the cumulative quality point average.

In order to be in good academic standing, a student must earn a minimum quality point average of 1.50 his first semester; 1.75 in his second and third semesters; and 2.00 in his fourth semester and thereafter. His cumulative quality point average should also be 2.00 by the end of the fourth semester, but if the cumulative is below 2.00, a

student may have the summer immediately following his fourth semester and two succeeding semesters to bring his cumulative to a satisfactory level, provided that his semester averages are 2.00 or above. If the cumulative average is below 2.00 at the end of this period, the student is placed on academic suspension.

If at the end of any semester a student has fallen below a required standard in either his semester or cumulative average, he is placed on academic probation for one full semester, effective the first semester of attendance immediately following. If he fails to achieve a satisfactory average during the probationary semester, he is placed on academic suspension for one full semester, effective the first semester of attendance immediately following. However, a student on academic probation who achieves a satisfactory semester average but does not achieve a satisfactory cumulative average is continued on probationary status for an additional semester.

Students who are placed on probation or suspended are informed by letter. A copy of the letter is also sent to the student's parent, guardian, husband, or wife.

Teacher Education students, in order to qualify for student teaching, must have marks of "C" or above in English 111 and 112; a quality point average of at least 2.00 in all fields in which they are seeking certification; and a cumulative quality point average of 2.00 for all their academic work. Students having six or more semester hours of reported failure in a field of certification or in required general or professional education courses shall not be assigned to student teaching.

All candidates for undergraduate degrees must have a cumulative average of 2.00 for all academic work and marks of "C" or above in English 111 and 112 in order to qualify for graduation.

All scholastic standards noted above are subject to change by the college.

DEGREE PROGRAMS

Clarion State College offers combined academic and professional education curricula leading to the undergraduate degrees of Bachelor of Science with certification for teaching in the public elementary and secondary schools of the Commonwealth of Pennsylvania, Bachelor of Arts in the Liberal Arts and Sciences, and Bachelor of Science in Business Administration.

TEACHER EDUCATION

Students working toward the Bachelor of Science in Education may choose among curricula leading to certification in the following areas:

1. ELEMENTARY EDUCATION
2. LIBRARY SCIENCE

3. PUBLIC SCHOOL NURSING**4. SECONDARY EDUCATION**

- | | |
|-----------------------------|--------------------|
| (a) Biology | (h) German |
| (b) Chemistry | (i) History |
| (c) Comprehensive Science | (j) Mathematics |
| (d) Earth and Space Science | (k) Physics |
| (e) English | (l) Russian |
| (f) French | (m) Social Studies |
| (g) Geography | (n) Spanish |
| | (o) Speech |

5. SPECIAL EDUCATION

- (a) Mental Retardation
- (b) Speech Pathology and Audiology

Any student who earns certification in Elementary Education, Library Science, or Secondary Education may also include in his program a course of study that will extend his certification to include Safety Driving and General Safety Education.

LIBERAL ARTS AND SCIENCES

Students in the liberal arts and sciences may choose among three broad areas of study, each of which offers a variety of fields for major specialization. The three major areas and the fields of specialization within them are listed below:

1. HUMANITIES

- (a) Foreign Language
- (b) Literature
- (c) Music
- (d) Philosophy
- (e) Speech
- (f) Theater Arts

2. NATURAL SCIENCE AND MATHEMATICS

- (a) Biology
- (b) Chemistry
- (c) Physical Geography
- (d) Mathematics
- (e) Physics

3. SOCIAL SCIENCES

- (a) Economics
- (b) Geography
- (c) History
- (d) Political Science
- (e) Psychology
- (f) Sociology-Anthropology

BUSINESS ADMINISTRATION

All students in Business Administration are required to take a broad program of business foundation subjects and then may choose a business field of specialization in one of the following major areas:

1. ACCOUNTING
2. ECONOMICS
3. GENERAL BUSINESS ADMINISTRATION

GRADUATE STUDY

Beginning with the Fall semester, 1967, Clarion State College will initiate a number of programs of graduate study leading to the master's degree. These programs have been designed to serve the student who desires to continue work at the graduate level in various fields of the arts and sciences and the student whose objective is to pursue an advanced program in professional education for certification purposes or additional subject matter competency. Detailed information concerning program offerings may be obtained by writing to:

Dean of Graduate Study
Clarion State College
Clarion, Pennsylvania 16214

FEES

(Subject to Change Without Notice)

Summary of approximate costs per academic year (September to May) for Pennsylvania resident students.*

	Elem. & Secondary	Library Science	Lib. Arts and Business Adm.
Basic Fee	\$250	\$250	\$300
Activity Fee	50	50	50
Est. Cost—books & supplies	100	100	100
Room, Board & Linen Service	612	612	612
Special		18	
	<u>\$1,012</u>	<u>\$1,030</u>	<u>\$1,062</u>

* Commuting students pay the same costs except the item for room, board, and linen service.

I. Activity Fee

This fee, collected from all regularly enrolled students, is administered through a student organization approved by the Board of Trustees. It covers the cost of athletic entertainment, publications, etc. Students taking fewer than twelve semester hours may take advantage of the program by paying this fee. The fee, determined and collected by the Clarion Students' Association, is \$25.00 each semester. Student Activity Fees for Summer Sessions are as follows: Pre-

Session \$3.00; Regular Session \$6.00; Post Session \$3.00. The Activity Fee must be paid prior to or at the time of registration. **ACTIVITY FEES ARE NOT REFUNDABLE UPON WITHDRAWAL OR DISMISSAL OF THE STUDENT FOR ANY REASON.** Checks covering activity fees must be made payable to **CLARION STUDENTS' ASSOCIATION.**

II. Basic Fee

- A. Basic Fees for residents of Pennsylvania**, amounting to \$250.00 for Teacher Education students and \$300 for Liberal Arts and Business Administration students (\$125.00 and \$150.00, respectively per eighteen-week semester) shall be charged to cover registration and keeping of records of students, library, students' health service (other than extra nurse and quarantine), and laboratory facilities. Checks in these amounts must be made payable to the **COMMONWEALTH OF PENNSYLVANIA**. Basic Fees for ten (10) or fewer semester hours of credit during a semester are as follows:

\$12.50 per hour for Teacher Education

\$15.00 per hour for Liberal Arts and Business Administration

\$20.00 per hour for Out-of-State Students

For the summer sessions, Basic Fees are determined by the semester hour rates indicated above, with a minimum fee during any session of \$37.50 for Teacher Education, \$45.00 for Liberal Arts and Business Administration, and \$60.00 for Out-of-State students.

- B. Students in the Library Science curriculum** are required to pay an additional fee of \$9.00 per semester to cover the cost of materials, supplies, equipment, and special services. For the six weeks summer session, this fee will be \$3.00. For part-time students in Library Science, this contingent fee for the special curriculum will be \$.50 per semester hour load.
- C. Fees for Out-of-State Students.** Students whose legal residence is out of the State of Pennsylvania pay \$20.00 per semester hour. The amounts for the Activity Fee, Room and Board charges, and costs of books and supplies are the same as for students who are Commonwealth residents. Students who enter the college from an out-of-state address will generally continue to be classified as Non-Pennsylvania residents for fee purposes during their four years of college. An exception is made if the student's parents establish legal residence in the Commonwealth. The establishment by the student of a Pennsylvania mailing address does not change the student's out-of-state status for fee purposes so long as his parents continue to reside out-of-state. The establishment by the student of a residence with a Pennsylvania resident who is a relative does not change the student's out-of-state status for fee purposes, unless that relative legally adopts the student.

D. Part-Time and Summer School Fees.

For Pennsylvania residents: \$12.50 per semester hour (minimum fee \$37.50) for Teacher Education and \$15.00 per semester hour (minimum fee \$45.00) for Liberal Arts and Business Administration.

For Out-of-State students: \$20.00 per semester hour (minimum fee: \$60.00).

Activity fees for all students are \$6.00 per six week session and \$3.00 per three week session.

Board, room and linen service is \$102.00 per six week session and \$51.00 per three week session.

Books and supplies are estimated at \$16.00 per six week session and \$8.00 per three week session.

III. Housing Fees

A. For board, furnished room, heat, light, and limited laundry the charge will be \$612.00 for the academic year. No reduction shall be allowed for absences from the college.

B. For damage, breakage, loss, or delayed return of college property the charges shall be equal to the extent of the loss.

C. The rental contract for college residence halls shall be for the academic year, mid-term graduates or student teachers excluded.

D. For students rooming off campus in private homes or off-campus residence halls and boarding in the college dining room, board shall be \$162.00 per semester and \$9.00 per week during the summer sessions.

E. Cost of meals for transients: breakfast, 60¢; lunch, 85¢; dinner, \$1.25.

F. Transient lodging fee: \$1.50 plus tax per night per person.

IV. Miscellaneous Fees

A. **Deposits.** Students who plan to return to college in September must reserve a place at the college by pre-paying a non-refundable Student Activity Fee of \$25.00 not later than April 20. Check or money order should be payable to Clarion Students' Association. The student's name should be printed in the lower left corner of the check or money order. Please do not mail cash.

Residence Hall students are required to make a non-refundable deposit of \$72.00 to reserve a room for the fall semester. Check or money order is to be payable to Commonwealth of Pennsylvania. Send check or money order to the Business Manager, Clarion State College.

Application for admission as either freshman or transfer student must be accompanied by a \$10.00 fee to cover the cost of processing, interviewing, and admission. This fee will not be credited to the student's account as a part payment of basic, housing, or other fees. An additional fee of \$25.00 must be paid upon receipt of notice of approval of the application. This

\$25.00 fee is not refundable but will be applied to the student's basic fee. Checks or money orders for these amounts must be drawn to the Commonwealth of Pennsylvania.

- B. **Diploma Fee.** A fee of \$5.00 is paid by each degree candidate to cover the cost of executing his diploma.
- C. **Late Registration Fee.** Each student registering after the date officially set for registration may be required to pay a late registration charge of \$10.00. The same regulation shall apply to students who do not complete registration on assigned days. When permission for late registration has been secured from the Business Manager because of illness or any other avoidable cause, this fee may be waived. Registration is not complete until all fees are paid.
- D. **Medical Service Fees.** A charge of \$1.00 shall be assessed to a boarding student for each day beyond three days he is a patient in the infirmary during any one academic year. An additional charge of \$3.00 per day will be assessed to non-boarding students to cover the cost of meals while the student is in the infirmary. Students will be charged for any medicines not stocked by the infirmary. They have the privilege of employing their own physician at personal expense if they desire. If in the case of a serious illness or injury the college physician or nurse believes that transportation is necessary to the infirmary or to a local or home hospital, such transportation will be provided by ambulance, but the expense must be borne by the student.
- E. **Schedule Change Fee.** A student requesting a change of course or courses after the date officially set for registration may be required to pay a change of registration fee of \$10.00.
- F. **Transcript Fee.** One copy of a transcript of credits earned at Clarion State College will be issued free of charge. A charge of \$1.00 is made for each subsequent transcript. Persons desiring to have their credits transferred to another institution should give the name and address of such institution. Transcripts will not be issued to anyone who has unpaid bills, library fines, or damage fees on his account.

V. Payments of Fees

All fees must be paid in advance and no student against whom there are any unpaid charges shall be allowed to enroll, graduate, or receive a transcript of record.

VI. Repayments

Repayments will be made when a student withdraws because of personal illness, certified by an attending physician, or because of such other reasons as may be approved by the Board of Trustees. Repayments may include the amount of the contingent and housing fees paid by the student for that part of the semester which the student does not spend in the college. Repayments to students who are temporarily suspended, indefinitely suspended, dismissed, or

who voluntarily withdraw from the college are governed by the following regulations:

Basic fees, housing fees, special curriculum charges, and activity fees **will not be refunded for the semester involved.**

A portion of the dining fee may be refunded when a student withdraws.

Refunds will not be made unless the student withdraws from school.

Students who start boarding will not be permitted to withdraw from the dining room during the semester unless they leave school.

All requests for refunds shall be submitted in writing to the Business Manager of the college.

Students desiring to withdraw from school must report to the Dean of Academic Affairs, Registrar, Business Office, Loan Office, and Campus Bookstore to settle all unpaid accounts.

PAYMENT OF FEES

All basic fees, special fees, housing fees, dining privileges and activity fees are due and payable on a full semester basis upon registration.

FEE CHARGES PER SEMESTER

	(Does not include Activity Fee)		
	Elementary- Secondary	Library Science	Lib. Arts and Business Adm.
Commuting Students			
Basic	\$125.00	\$125.00	\$150.00
Special		9.00	
Total	<u>\$125.00</u>	<u>\$134.00</u>	<u>\$150.00</u>
Resident Students			
Basic	\$125.00	\$125.00	\$150.00
Special		9.00	
Room, Board & Laundry	306.00	306.00	306.00
Total	<u>\$431.00</u>	<u>\$440.00</u>	<u>\$456.00</u>
Boarding Students Only			
Basic	\$125.00	\$125.00	\$150.00
Special		9.00	
Meals	162.00	162.00	162.00
Total	<u>\$287.00</u>	<u>\$296.00</u>	<u>\$312.00</u>
Rooming Students Only			
Basic	\$125.00	\$125.00	\$150.00
Special		9.00	
Room	144.00	144.00	144.00
Total	<u>\$269.00</u>	<u>\$278.00</u>	<u>\$294.00</u>

FINANCIAL AID SERVICES

Financial assistance is available to students in the form of scholarships and grants, loans, and employment. Detailed information and necessary application forms may be secured from the Office of Financial Aid. Since the determination of eligibility for many types of assistance is based on an analysis of a current Parents' Confidential Statement, students are encouraged to request their parents to file a completed statement with the College Scholarship Service, Princeton, New Jersey, and designate Clarion State College to receive a copy.

SCHOLARSHIPS AND GRANTS

Pennsylvania Higher Education Assistance Agency Scholarships. The determination of recipients of these scholarships is made by the Agency. The scholarships vary in amount and are based on the financial need of students. Application forms may be secured from the Agency or from high school guidance counselors.

Educational Opportunity Grants. Federal grants to a maximum of \$800 are available to entering freshmen with "exceptional financial need" as defined by regulations of the United States Office of Education. Matching financial assistance designed to provide sufficient funds for a student to complete a college program is provided to designated recipients of Educational Opportunity Grants.

H. W. Colegrove Scholarship Fund. A trust fund established by Mr. H. W. Colegrove at the First National Bank of Port Allegany provides for two scholarships of \$100 each per year to be awarded to women students from McKean County. Women students from this county may secure information concerning these scholarships from the Office of Financial Aid.

Marian Renn Marshall Scholarship Fund. This fund, established as a memorial to Marian Renn Marshall, is designed to provide financial aid to students enrolled in Speech Pathology and Audiology. Specific information concerning requirements for granting assistance to individual students may be secured from the Office of Financial Aid.

Elvina C. Moyer Scholarship Fund. This scholarship fund was established by the will of the late Anna B. Lilly to be financed through income received from funds held in trust. Although the scholarship varies from year to year, it now approximates \$150. A loan equal to the scholarship is available to the designated recipient. The selection of a student to receive the scholarship is made by the faculty of the College.

Hannah Kent Schoff Memorial Scholarship Fund. The Pennsylvania Congress of Parents and Teachers, through the Hannah Kent Schoff Memorial Scholarship Fund, awards four-year scholarships of \$150 each year (\$600 for four years) to two students from each of the

fourteen State Colleges of Pennsylvania. The committee responsible for selecting scholarship recipients in each of the colleges will select incoming freshmen on the basis of entrance examination results, high school grades and class rank, high school ratings of personal attributes, extra-class activities, and a personal interview. Applicants for this scholarship must have been accepted for admission by the College. Application forms, which may be secured from the Director of Admissions, must be received by March 1.

Oil City Adelphoi Club Scholarships. Two scholarships of \$250 per year are awarded by the Oil City Adelphoi Club to selected students attending Clarion State College on the Venango Campus. Information concerning the scholarships may be obtained from high school guidance counselors or the Secretary of the Oil City Adelphoi Club.

Oil City Lions Club Scholarship. An annual scholarship of \$250 is awarded by the Oil City Lions Club to a selected student from any Oil City high school or the Cranberry Area High School who attends Clarion State College on the Venango Campus. Information concerning the scholarship may be obtained from high school guidance counselors or the Secretary of the Oil City Lions Club.

LOANS

National Defense Student Loan Program. This program provides for loans to students who have a demonstrated need for financial assistance and who are in good academic standing. Loans totaling more than \$200,000 were granted to students under this program during the 1966-67 college year. This program has been made possible in the past because of the generous contributions of both individuals and organizations who have provided the ten per cent matching funds required by the Federal government.

To be eligible for consideration for a loan, a student must complete an application form, have a current Parents' Confidential Statement on file in the Office of Financial Aid, be a citizen of the United States or have declared his intention to obtain citizenship, be enrolled or accepted for enrollment as a full-time student, and not be a member of an organization registered or required to be registered under the Subversive Activities Control Act of 1950.

These loans, which are non-interest bearing while a student is enrolled, may not exceed \$1,000 in an academic year. Repayment of the loan may extend over a ten-year period beginning nine months after withdrawal or graduation from the College. Repayments are to be made on a quarterly basis with interest accruing at the rate of three per cent per year. The first quarterly payment of principal and interest is due one year after graduation or withdrawal.

Borrowers who teach full time in public or non-profit elementary or secondary schools, or institutions of higher education may have ten per cent of the loan and accumulated interest cancelled for each year of such teaching to a maximum of fifty per cent of the loan.

In specified teaching situations, as much as fifteen per cent of the loan may be cancelled for each year of teaching. The borrower's obligation to repay the loan is cancelled in the event of death or permanent and total disability.

Completed applications for National Defense Student Loans should be submitted to the Office of Financial Aid.

Pennsylvania Higher Education Assistance Agency Guaranteed Loans. Loans to a maximum of \$1,000 per academic year for students in good academic standing are generally available from local banks, and savings and loan associations. The loans are guaranteed by the Agency. If the annual adjusted family income is below \$15,000 per year, the Federal government will pay the interest while the student is enrolled in college and one half of the interest during the repayment period. Application forms and detailed information may be secured from the financial institution from which a loan will be requested.

Alumni Loan Fund. The Alumni Association of Clarion State College has established a permanent loan fund by combining several funds previously administered by the Association and through contributions of alumni and friends of the College.

Loans may be granted to a maximum of \$100 per college year to students in good academic standing who have been approved by the Campus Alumni Officer and the Director of Financial Aid. All loans are due one year after graduation or withdrawal from college with interest charged at the rate of four per cent from the date of graduation or withdrawal.

Application forms may be secured from the Office of Financial Aid.

Bowl Loan Fund. Income received from a football bowl game in which the Clarion State College team participated several years ago and contributions from friends of the College made possible the establishment of this loan fund. Short-term loans to a maximum of \$150 are available to students who are in financial need, are enrolled as full-time students with at least fifteen semester hours of credit earned at Clarion State College, and are approved by a coach of a varsity sport, the Director of Athletics, and the Director of Financial Aid. Application forms may be secured from the Office of Financial Aid.

H. W. Colegrove Educational Loan Fund. The will of Mr. H. W. Colegrove provides that the First National Bank of Port Allegany may make loans to college students from an established fund to a maximum of \$200 in any one year with no more than \$500 to any one student during the completion of his college program. The rate of interest is two per cent while the student is enrolled and four per cent per year after withdrawal or graduation. Information concerning this loan may be secured from the First National Bank of Port Allegany.

Wallace S. Girling Loan Fund. Mr. Wallace S. Girling has established a loan fund for Clarion State College students to be administered by a committee consisting of two college faculty members and two individuals not associated with the College. Loans are granted

to deserving students who have filed applications and are approved by the committee. Information concerning this loan fund may be secured from either of the two college representatives on the committee.

Frank L. Harvey Student Loan Fund. A loan fund totaling \$1,000 established in memory of Frank L. Harvey is designed to provide needed financial assistance to deserving and worthy college students. Information concerning loans available from this fund can be secured from the Office of Financial Aid.

Mary Sterrett Moses and Elbert Raymond Moses, Jr., Loan Fund. This loan fund has been established to provide graduate students majoring in Speech or related areas with an opportunity to borrow interest free a maximum of \$100 per academic year. Information concerning this loan fund may be secured in the Office of Financial Aid.

Mary Ann Trance Loan Fund. Established as a memorial to the late Mary Ann Trance by her college friends and her mother, this fund of \$200 is available to a senior woman student. The loan available from the fund is non-interest bearing and repayable after graduation. Information concerning this loan may be secured from the Office of Financial Aid.

EMPLOYMENT

Employment on a part-time basis is available to the extent that funds are provided for this purpose by the Federal government and the Commonwealth of Pennsylvania. The assignment of students to part-time campus positions is generally based on financial need; however, it should be recognized that such employment will not be sufficient to meet the total expenses of attending college.

Federal Work-Study Program. The College participates in the Federal Work-Study Program which permits eligible students to work a maximum of 15 hours per week while classes are in session. A limited number of positions are available under this program for full-time employment during vacation periods. Eligibility requirements for employment include United States citizenship, demonstrated financial need as determined by a current Parents' Confidential Statement, and satisfactory academic standing.

State Employment Program. A limited number of part-time positions are available under this program to students with satisfactory academic standing and some financial need. Most student positions are limited to a maximum of 15 hours of employment per week.

TEACHER EDUCATION

OBJECTIVES OF THE TEACHER EDUCATION PROGRAM

Clarion State College is officially maintained for the education and preparation of teachers for the public schools of Pennsylvania and for education in the arts and sciences.

Five curricula of specialized type are offered in professional education: library science; elementary education; secondary education; special education and public school nursing.

Teacher preparation requires a program through which college graduates come to perform the offices of private person and public teacher in accord with qualities of good citizenship.

Therefore, each curriculum includes required studies in English expression, social studies, literature, fine arts, and science which express our social, intellectual, and cultural heritage.

Professional preparation in each curriculum is based upon adequate mastery of subject matter to give proficiency in teaching and upon adequate knowledge of psychology and philosophy to enable teachers to interest and instruct pupils.

Special Objectives:

1. To develop an understanding and appreciation of American democracy and the function of the public school in a democratic society.
2. To develop respect for the rights, responsibilities, and welfare of others.
3. To emphasize the moral, spiritual, and aesthetic values which will strengthen the individual in his personal and professional life.
4. To guide students so as to encourage them to enter the profession and continue in it.
5. To promote an understanding of children and youth in relation to their individual differences, the nature of the learning process, developmental behavior, and the interaction of the individual with the group.
6. To ensure the student's ability to read, write, and speak effectively.
7. To promote use of reflective thinking in problem solving.
8. To ensure that the student is capable of developing the scope and sequence of the courses of study within his areas of certification.
9. To provide college classroom instruction which is designed to

help prospective teachers develop methodology for their own classrooms.

10. To encourage students to practice recreational activities, both physical and mental, for wholesome enjoyment of leisure time now and in later life.

Students who enroll in one of the Teacher Education Curricula may earn the degree of Bachelor of Science in Education with certification for library science, for teaching on the elementary or secondary level, or for public school nursing. Students may choose from the following curricula, all of which lead to the Bachelor of Science degree:

Curriculum in Elementary Education to prepare for teaching in the kindergarten, primary, and intermediate grades.

Curriculum in Library Science Education to prepare for certification as school librarian.

Curriculum in Public Nursing to prepare registered nurses for certification as public school nurses.

Curriculum in Secondary Education to prepare for teaching in junior and senior high schools.

Curriculum in Special Education to prepare for teaching the mentally retarded or the speech and hearing handicapped.

A student who is enrolled in the Elementary, Secondary, or Library Science curricula may also take courses which will lead to certification in Safety Education.

CERTIFICATION

The Provisional College Certificate

Students who complete one of the teacher education curricula of the Clarion State College and who are awarded a baccalaureate degree are granted the Pennsylvania Provisional College Certificate, valid for three years of teaching in the schools of the Commonwealth. Application for the certificate must be made and the certificate issued before graduates may teach in the public schools of Pennsylvania.

The Permanent College Certificate

The Permanent College Certificate requires three full years of successful teaching experience on the Provisional College Certificate in the public schools of this Commonwealth and the satisfactory completion of twenty-four (24) semester hours of post-baccalaureate education. Certificates issued prior to October 1, 1963, will continue to require twelve (12) semester hours of post-baccalaureate education for permanent validation.

Extension of Certificates

A certificate valid for the secondary school may be extended to include the elementary field on the completion of twenty-four semester hours of approved courses in the field of elementary education.

A certificate valid for the elementary school may be extended to include secondary subjects upon the completion of eighteen (18) to forty-six (46) semester hours of approved courses in a secondary subject, depending upon the area of specialization.

The holder of a certificate valid for the elementary school may have an endorsement of Library Science upon the completion of twelve (12) semester hours of approved courses in this field. This endorsement is valid only for the elementary school library.

The holder of a certificate valid for elementary education may have an endorsement of modern foreign language upon completion of six (6) semester hours in this field of study based upon practical techniques of speaking the language(s) with acceptable accent. The six (6) hours of study must rest upon adequate preparation in the language(s) as determined by the college.

A certificate for secondary English will be extended to include reading when an applicant has completed a minimum of six semester hours in developmental and remedial reading. Education 333 is suggested as the basic course with Education 221, 425, and 426 as optional electives.

Evaluation of Credits

Evaluations of the credits for students are considered valid only for the year in which distributions are made (year in which credits are earned). This situation exists because of changes in regulations governing the value of credits and in the requirements for certification and graduation frequently made by the State Department of Public Instruction, the State Board of Education, and the Board of Presidents of the State Colleges. Students are urged to keep themselves well informed about their distributions by occasional inquiries at the Academic Office at times other than registration periods.

REQUIREMENTS

General Education

By regulation of the Pennsylvania State Board of Education, effective October 1, 1963, all applicants for certification to teach in the Commonwealth must have completed a minimum of sixty semester hours of acceptable courses in General Education. Students in all curricula will follow the same program. Deviation from the program is permitted for those who specialize in Science or Mathematics. Specialized courses in these fields may be substituted for the general requirements in science or mathematics.

Required courses in General Education for education majors are specified in the section headed "General Education—All Curricula."

Professional Education

Candidates for certification in elementary education must complete the Professional Education courses specified on page 46. Candidates

for secondary certification are required to complete the Professional Education courses listed on page 47.

Areas of Specialization

Secondary majors must complete the requirements for a field of certification as outlined in the section entitled Course Distributions and, unless otherwise specified, minimum requirements for certification in a second field. It should be noted that methods courses can not be counted toward completion of an academic requirement.

Library Science majors will complete requirements for Library Science Certification and also the minimum requirements for certification in an additional field.

Elementary majors, in addition to completing the requirements for elementary certification, must take an academic concentration of 18 to 24 semester hours, of which 15 hours may be considered as part of general education. The academic major may be in a single subject such as history, in a broad field such as psychology or sociology, or in an interdisciplinary area such as the humanities, the social sciences, or the natural sciences. The requirement for the academic major may also be satisfied by an 18 to 24 hour concentration in a field of interest, such as Art, Library Science, Music, or Special Education.

Student Teaching

Those who major in secondary education are assigned to student teaching during either the seventh or eighth semester. Each secondary major will receive an assignment for a full day of student teaching throughout one semester at one of the public school student teaching centers cooperating with the college.

Secondary students majoring in Library Science are assigned to student teaching during either the seventh or eighth semesters. Two major assignments are required: the equivalent of one half time in public school library practice and the equivalent of one half time in classroom academic teaching at one of the public school teaching centers cooperating with the college.

Those who major in elementary education are assigned to student teaching during either the seventh or eighth semester. Each elementary major will receive an assignment for a full day of student teaching throughout one semester at the Campus Training School or at one of the public school elementary student teaching centers associated with the college. For elementary majors with the 18 semester hour concentration in Library Science, the semester's program in student teaching is divided into two student teaching assignments involving experience at one grade level and an elementary school library.

Student teachers are encouraged to reside throughout the semester in the community in which their student teaching center is located.

All student teaching assignments follow the public school calendar rather than the college calendar each semester.

The final grade in student teaching will be recommended by the cooperating teacher in consultation with the College supervisor and will be finally approved and reported by the College supervisor.

Student teachers must meet college requirements prior to assignment.

PUBLIC SCHOOL STUDENT TEACHING CENTERS

Allegheny-Clarion Valley Schools, Foxburg, Pennsylvania
Armstrong School District, Box 351, Ford City, Pennsylvania
Babcock School District, R. D. 1, Gibsonia, Pennsylvania
Baden-Economy School District, M. R. No. 1, Freedom, Pennsylvania
Beaver Falls Area Schools, Beaver Falls, Pennsylvania
Bradford Area Schools, Bradford, Pennsylvania
Brockway Area Schools, Brockway, Pennsylvania
Brookville Area Schools, Brookville, Pennsylvania
Burrell School District, Lower Burrell, Pennsylvania
Butler Area Schools, Butler, Pennsylvania
Chartiers Valley School District, Pittsburgh 20, Pennsylvania
Clarion Area Schools, Clarion, Pennsylvania
Clarion Limestone Area Schools, R. D. 1, Strattanville, Pennsylvania
Cranberry Area Schools, Seneca, Pennsylvania
Curwensville School District, Curwensville, Pennsylvania
DuBois Area Schools, DuBois, Pennsylvania
Fairview Township-Karns City School District, Karns City,
Pennsylvania
Forest Area Schools, Tionesta, Pennsylvania
Franklin Area Schools, Franklin, Pennsylvania
Freeport Area Schools, Freeport, Pennsylvania
Grove City Area Schools, Grove City, Pennsylvania
Hempfield Area Schools, R. D. 6, Greensburg, Pennsylvania
Highlands School District, Tarentum, Pennsylvania
Johnsonburg Area Schools, Johnsonburg, Pennsylvania
Kane Area Union Schools, Kane, Pennsylvania
Keystone School District, Knox, Pennsylvania
Kiski Area Schools, R. D. 3, Leechburg, Pennsylvania
Leechburg Union Schools, Leechburg, Pennsylvania

Lenape Area Vocational-Technical School, Ford City, Pennsylvania
 New Castle Area Schools, New Castle, Pennsylvania
 New Kensington-Arnold School District, New Kensington, Pennsylvania
 North Clarion County Schools, Leeper, Pennsylvania
 North Hills School District, Pittsburgh 29, Pennsylvania
 Northern Butler County Schools, R. D. 2, West Sunbury, Pennsylvania
 Oakmont Public Schools, Oakmont, Pennsylvania
 Oil City Area Schools, Oil City, Pennsylvania
 Penn Hills School District, Pittsburgh 35, Pennsylvania
 Pittsburgh Public Schools, Pittsburgh 13, Pennsylvania
 Plum Borough School District, Pittsburgh 39, Pennsylvania
 Punxsutawney Area Schools, Punxsutawney, Pennsylvania
 Redbank Valley School District, New Bethlehem, Pennsylvania
 Ridgway Area Public Schools, Ridgway, Pennsylvania
 Sharon City Schools, Sharon, Pennsylvania
 South Butler County Schools, Saxonburg, Pennsylvania
 St. Marys Area Schools, St. Marys, Pennsylvania
 Union School District, Rimersburg, Pennsylvania
 Valley Grove Schools, Rocky Grove, Franklin, Pennsylvania
 West Deer Township Schools, R. D. 5, Gibsonia, Pennsylvania

COURSE DISTRIBUTIONS

GENERAL EDUCATION—ALL CURRICULA IN TEACHER EDUCATION

			c.h.	s.h.
Eng.	111	Composition I	3	3
Eng.	112	Composition II	3	3
Sp.	113	Fundamentals of Speech	3	3
Mus.	111	Introduction to Music	3	3
Art	111	The Visual Arts	3	3
Eng.	213	Introduction to Literature	3	3
Phil.	211	Introduction to Philosophy	3	3
Hist.	112	History of Modern Civilization	3	3
Hist.	213	History of the U.S. and Pa.	3	3
P.S.	211	American Government	3	3
Anth.	211	Anthropology (or)	3	(3)

Soc.	211	Principles of Sociology (or)	3	(3)
Econ.	211	Principles of Economics	3	3
Biol.	111	Basic Biological Science	4	4
Ph. Sci.	111	Basic Physical Science I	3	3
Ph. Sci.	112	Basic Physical Science II	3	3
Math.	111			
	or 112	Basic Mathematics	3	3
Geog.	111	Physical Geography	3	3
Geog.	257	Geog. of U.S. and Canada (or)	3	(3)
Geog.	254	Conserv. of Natural Resources	3	3
Psy.	211	General Psychology	3	3
HPE	111	Health Education	2	2
HPE	112,			
	211, 212	Physical Education for men (or)		
HPE	121,			
	221, 321, 421	for women; three semesters	2	1

Note: Elementary majors should schedule HPE 223 as a substitute for one of the above courses in Physical Education. Elementary majors must substitute Music 131 for Music 111. They may schedule Music 111 as an elective.

All students may substitute more advanced courses in biology, physics, and mathematics for Biology 111, Physical Science 111 and 112, and Mathematics 111.

PROFESSIONAL EDUCATION—ELEMENTARY

(Required of all Elementary majors)

			c.h.	s.h.
Ed.	223	Social Foundations of Education	3	3
Psy.	320	Human Growth and Development	5	5
Ed.	329	Audio-Visual Education	3	2
El. Ed.	323	Teaching of Reading	3	3
El. Ed.	324	Teaching of Arithmetic	3	3
Sci.	222	Teaching Science in Elementary Grades	2	2
Art	222	Teaching Art in Elementary Grades ..	3	2
Mus.	132	Literature and Materials of Music IIE	3	3
El. Ed.	325	Modern Curriculum and Methods	5	5
El. Ed.	422	Professional Practicum and School Law	2	2
El. Ed.	424	Student Teaching	30	12

Note: Students who have the 18-hour concentration in Library Science are required to take El.Ed. 423: Library Practice—6 credits and El.Ed. 424: Elementary Student Teaching—6 credits.

THE CURRICULUM IN ELEMENTARY EDUCATION

(Sequence of courses subject to change for administrative reasons.)

1st Semester				5th Semester			
Eng.	111:	Composition I	3	Psy.	220:	Human Growth & Dev.	5
Ph.Sci.	111:	Basic I	3	El.Ed.	324:	Teach. of Arith.	3
Hist.	213:	U.S. & Pa.	3	Eng.	331:	Child. Lit.	3
Math.	111:	Basic Elem.	3	Sci.	231:	Fused	2
Geog.	111:	Physical	3			Elective	3
HPE	112:	Physical Education	2-1				16-16
			17-16				
2nd Semester				6th Semester			
Eng.	112:	Composition II	3	El.Ed.	325:	Mod. Curr. & Meth.	5
Ph.Sci.	112:	Basic II	3	El.Ed.	323:	Teach. of Reading	3
Art	011:	Fundamentals	2-1	Geog.	257 or 254:	U.S. & Can. or Cons.	3
Biol.	111:	Basic	4	Sci.	222:	Teach. Sci. Elem. Gr.	2
Sp.	113:	Fundamentals	3			Elective	3
HPE	111:	Health	2				16-16
			17-16				
3rd Semester				7th Semester (or 8th)			
Eng.	213:	Intro. to Lit.	3	P.S.	211:	American Gov.	3
Psy.	211:	General	3	Phil.	211:	Introduction	3
Mus.	131:	Lit. & Mat. I	3	Soc.	211 or Econ. 211:	Anth. 211:	3
Art	231:	Studio Exp.	3-2	Ed.	329:	Audio-Visual	3-2
HPE	211:	Physical Education	2-1			Elective	6
		Elective	3				18-17
			17-15				
4th Semester				8th Semester (or 7th)			
Ed.	223:	Social Foundations	3	El.Ed.	424:	Student Teach.	30-12
Art	111:	Visual Arts	3	El.Ed.	422:	Prof. Pract. & Sch. Law	2-2
Hist.	112:	Modern Civ.	3				32-14
Mus.	132:	Lit. & Mat. II	3				
Art	222:	Teach. Art Elem. Gr.	3-2				
HPE	223:	Physical Education	2-1				
		Elective	3				
			20-18				

PROFESSIONAL EDUCATION—SECONDARY

(Required of all Secondary Education and
Library Science majors.)

			c.h.	s.h.
Ed.	223	Social Foundations of Education	3	3
Psy.	222	Educational Psychology	3	3
Psy.	321	Psychology of Adolescence	2	2
Ed.	321	Select course in Methods and Eval-		
to Ed.	328	uation in field of Specialization	3	3
Ed.	329	Audio-Visual Education	3	2
Ed.	422	Professional Practicum Including		
		School Law	2	2
Ed.	424	Secondary Student Teaching	30	12

Library Science Majors

Ed.	423	Library Practice	15	6
Ed.	424	Secondary Student Teaching	15	6

THE CURRICULUM IN SECONDARY EDUCATION

(Sequence of courses subject to change
for administrative reasons.)

1st Semester				5th Semester			
Eng.	111:	Composition I	3	Hist.	213:	U.S. and Pa. Hist.	3
Geog.	111:	Physical	3	Phil.	211:	Introduction	3
Ph.Sci.	111:	Basic I	3			Elective	11
Math.	112:	Basic Secondary	3				17-17
HPE	112:	Phys. Ed.	2- 1				
HPE	111:	Health	2				
			16-15				
2nd Semester				6th Semester			
Eng.	112:	Composition II	3	Ed.	329:	Audio-Visual Ed.	3- 2
Sp.	113:	Fundamentals	3	Ed.		Meth. in Academic Field	3
Ph.Sci.	112:	Basic II	3	Ed.	223:	Social Foundations	3
Hist.	112:	Modern Civ.	3			Elective	9
Biol.	111:	Basic	4				18-17
			16-16				
3rd Semester				7th Semester (or 8th)			
Psy.	211:	General	3	Psy.	321:	Adolescent	2
Art	111:	Visual Arts	3	P.S.	211:	American Government	3
Econ.	211 or	Soc. 211: Anth.	3			Elective	12
HPE	211:	Phys. Ed.	2- 1				17-17
		Elective	6				
			17-16				
4th Semester				8th Semester (or 7th)			
Eng.	213:	Introd'n to Literature	3	Ed.	422:	Prof. Pract. & Sch. Law	2
Mus.	111:	Introduction	3	Ed.	424:	Student Teaching	30-12
Geog.	257 or	254: U.S. & Can. or Cons.	3				32-14
Psy.	222:	Educational	3				
HPE	212:	Phys. Ed.	2- 1				
		Elective	3				
			17-16				

THE FIELD OF BIOLOGY

49 Semester Hours

Required:

			c.h.	s.h.
Biol.	153	General Biology I	6	4
Biol.	154	General Biology II	6	4
Biol.	201	Genetics	5	3
Biol.	202	Environmental Biology	5	3
Biol.	203	Cell Biology	5	3
Chem.	153	General Chemistry I	6	4
Chem.	154	General Chemistry II	6	4
Chem.	251	Organic Chemistry	6	4
Chem.	453	Biochemistry	6	3
*Ph.	251	General Physics I	6	4
*Ph.	252	General Physics II	6	4

Electives:

Biol.	351	Field Botany	5	3
Biol.	352	Taxonomy of Vascular Plants	5	3
Biol.	353	Ornithology	5	3
Biol.	354	Entomology	5	3
Biol.	355	Microbiology	5	3

Biol.	356	Field Zoology I	5	3
Biol.	357	Field Zoology II	5	3
Biol.	358	Conservation of Plant and Animal Resources	5	3
Biol.	360	Problems in Biology	5	3
Biol.	401	Radiation Biology	5	3
Biol.	451	Animal Physiology	5	3
Biol.	452	Plant Physiology	5	3
Biol.	460	Comparative Vertebrate Morphology .	5	3
Biol.	461	Vertebrate Embryology	5	3
Biol.	462	Histology	5	3
Biol.	470	Animal Ecology	5	3
Biol.	471	Plant Ecology	5	3
Biol.	472	Parasitology	5	3

No second field required.

*For courses in the field of Biology marked with an asterisk, Mathematics 171: College Algebra and Trigonometry is a prerequisite. Mathematics 151 and 152 may be substituted for 171.

Biology majors should not schedule Biology 111, Mathematics 112, or Physical Science 111 and 112 in their General Education programs.

THE FIELD OF CHEMISTRY

(40 Semester Hours)

Required:

			c.h.	s.h.
Chem.	151	Inorganic Chemistry I	8	5
Chem.	152	Inorganic Chemistry II	8	5
Chem.	251	Organic Chemistry I	6	4
Chem.	252	Organic Chemistry II	6	4
Chem.	352	Quantitative Analysis	7	3
*Chem.	354	Physical Chemistry I	6	4
*Chem.	355	Physical Chemistry II	6	4
Chem.	457	Instrumental Analysis	5	3
Ph.	251	General Physics I	6	4
Ph.	252	General Physics II	6	4

Elective:

			c.h.	s.h.
Chem.	255	Industrial Chemistry	5	3
Chem	258	Laboratory Techniques in Chemistry	3	2
Chem.	451	Inorganic Synthesis	7	3
Chem.	453	Biochemistry	6	3
Chem.	454	Water Analysis	4	2
Chem.	456	Advanced Inorganic Chemistry I	5	4

Chem.	459	Demonstrations in Chemistry	5	3
Chem.	460	Radiation Techniques	5	3
*Ph.	353	Atomic Physics	6	4

No second field required.

*For courses in the Field of Chemistry marked with an asterisk, Mathematics 272 is a prerequisite. Majors in the field should understand that Mathematics 272 must be preceded by Mathematics 151 and 152 or 171, and Mathematics 172 and 271.

Chemistry majors should not schedule Mathematics 112 or Physical Science 111 and 112 in their general education programs.

THE FIELD OF COMPREHENSIVE SCIENCE

(45 Semester Hours)

Required:

			c.h.	s.h.
Biol.	153	General Biology I	6	4
Biol.	154	General Biology II	6	4
Biol.	201	Genetics	5	3
Biol.	202	Environmental Biology	5	3
Biol.	203	Cell Biology	5	3
Chem.	153	General Chemistry I	6	4
Chem.	154	General Chemistry II	6	4
Geog.	353	Descriptive Astronomy	3	3
*Geog.	252	Geology	3	3
*Geog.	353	Geomorphology	3	3
*Geog.	351	Meteorology	3	3
*Geog.	352	Climatology	3	3
Ph.	251	General Physics I	6	4
Ph.	252	General Physics II	6	4
Math.	151	College Algebra	3	3
Math.	152	Trigonometry	3	3

No second field required.

Mathematics 171 may be substituted for Mathematics 151 and 152. Majors in Comprehensive Science should not include Biology 111, Mathematics 112, and Physical Science 111 and 112 in their general education programs.

*One of these courses.

THE FIELD OF COMPREHENSIVE EARTH AND SPACE SCIENCE

(48 Semester Hours)

Required:

			c.h.	s.h.
Geog.	111	Basic Physical Geography	3	3
Geog.	252	Geology	3	3

Geog.	258	Historical Geology	3	3
Geog.	351	Meteorology	3	3
Geog.	353	Descriptive Astronomy	3	3
		Electives		6
		(See below)		21
Biol.	153	General Biology I	6	4
Biol.	154	General Biology II	6	4
Chem.	153	General Chemistry I	6	4
Chem.	154	General Chemistry II	6	4
Ph.	251	General Physics I	6	4
Ph.	252	General Physics II	6	4
		Natural Science Elective	3-4	
				27-28
				48-49
Geog.	253	Geomorphology	3	3
Geog.	259	Map Interpretation	3	3
Geog.	260	Mineralogy	3	3
Geog.	261	Petrology	3	3
Geog.	352	Climatology	3	3
Geog.	451	Cartography	5	3
		Science Electives from Biology, Chemistry and Physics		

No second field required.

Earth and Space Science majors will schedule Mathematics 171 instead of Mathematics 112 and will not schedule Biology 111 or Physical Science 111 and 112 in their general education programs.

Biology, Chemistry and Physics majors will receive provisional college certification in Earth and Space Science by taking 12 semester hours in Physical Geography, Geology, Meteorology, Astronomy.

THE FIELD OF ENGLISH

(36 Semester Hours)

Required:

			c.h.	s.h.
Eng.	111	Composition I	3	3
Eng.	112	Composition II	3	3
Sp.	113	Fundamentals of Speech	3	3
Eng.	213	Introduction to Literature	3	3
Eng.	251	English Literature	3	3
Eng.	252	American Literature	3	3
Eng.	253	Philology and Grammar	3	3
Eng.	351	Advanced Composition	3	3

Electives:

			c.h.	s.h.
Eng.	254	American Prose	3	3
Eng.	255	Pre-Shakespearian Literature	3	3
Eng.	256	Seventeenth Century Literature	3	3
Eng.	257	Novel to 1870	3	3
Eng.	258	Short Story	3	3
Eng.	259	Journalism	3	3
Eng.	261	Romantic Movement in Amer. Lit.	3	3
Eng.	262	Realistic Movement in Amer. Lit.	3	3
Eng.	263	Contemporary American Literature ...	3	3
Eng.	331	Children's Literature	3	3
Eng.	352	American Poetry	3	3
Eng.	353	Shakespeare	3	3
Eng.	354	Eighteenth Century Literature	3	3
Eng.	355	Novel Since 1870	3	3
Eng.	356	Romantic Literature	3	3
Eng.	451	Contemporary Poetry	3	3
Eng.	452	Modern Drama	3	3
Eng.	453	Chaucer	3	3
Eng.	454	Victorian Literature	3	3
Eng.	455	Criticism	3	3
Eng.	456	English Honors Seminar	3	3
Eng.	457	Linguistics	3	3
Eng.	458	History of the English Language	3	3
Eng.	459	Old English Language and Literature .	3	3

No second field needed if 6 hrs. in Reading are scheduled in addition to 36 hours in English. The basic course is Education 333, to be followed by at least one elective chosen from Education 221, 425, or 426. Education 425 should not be scheduled unless student teaching has been completed.

THE FIELD OF FRENCH

(24 Semester Hours, excluding French 151 & 152)

Required:

			c.h.	s.h.
Fr.	255	French Civilization I	3	3
Fr.	256	French Civilization II	3	3
Fr.	351	Advanced Grammar & Composition ..	3	3

Elective:

			c.h.	s.h.
Fr.	353	The Modern French Drama	3	3
Fr.	354	The Modern French Novel	3	3

Fr.	355	French Romanticism	3	3
Fr.	356	French Poetry from Baudelaire to Surrealism	3	3
Fr.	357	The French Realistic Novel	3	3
Fr.	358	The Literature of the Age of Enlightenment	3	3
Fr.	359	The Literature of the Classical Age ..	3	3
Fr.	451	Supervised Readings in French Literature	3	3

THE FIELD OF GEOGRAPHY

(30 Semester Hours)

Required:

			c.h.	s.h.
Geog.	111	Basic Physical Geography	3	3
Geog.	257	Geography of U.S. and Canada	3	3

Elective: (at least one course from each group)

Group I

			c.h.	s.h.
Geog.	252	Physical Geology	3	3
Geog.	258	Historical Geology	3	3
Geog.	253	Geomorphology	3	3
Geog.	260	Mineralogy	3	3
Geog.	261	Petrology	3	3
Geog.	351	Meteorology	3	3
Geog.	352	Climatology	3	3
Geog.	353	Descriptive Astronomy	3	3
Geog.	259	Map Interpretation	3	3
Geog.	451	Cartography	5	3

Group II

			c.h.	s.h.
Geog.	251	Economic Geography	3	3
Geog.	254	Conservation of Natural Resources	3	3
Geog.	255	Trade and Transportation	3	3
Geog.	354	Historical Geography of the U.S.	3	3
Geog.	453	World Problems in Geography	3	3

Group III

Geog.	256	Geography of Pennsylvania	3	3
Geog.	355	Geography of Soviet Union	3	3
Geog.	356	Geography of Europe	3	3
Geog.	357	Geography of Asia	3	3
Geog.	452	Geography of Latin America	3	3
Geog.	454	Geography of Africa and Australia	3	3

THE FIELD OF GERMAN

(24 Semester Hours, excluding German 151 & 152)

Required:

			c.h.	s.h.
Ger.	255	Germanic Civilization I	3	3
Ger.	256	Germanic Civilization II	3	3
Ger.	351	Advanced Grammar & Composition ..	3	3

Elective:

			c.h.	s.h.
Ger.	253	Scientific German	2	2
Ger.	352	Survey of German Literature through the Classical Age	3	3
Ger.	353	The Modern German Drama	3	3
Ger.	354	The Modern German Novel	3	3
Ger.	355	German Romanticism	3	3
Ger.	358	Classical German Literature: Goethe, Schiller & Lessing	3	3
Ger.	451	Supervised Readings in German Literature	3	3

THE FIELD OF HISTORY

(30 Semester Hours)

Required:

			c.h.	s.h.
Hist.	111	History of Ancient and Medieval Civilization	3	3
Hist.	112	History of Modern Civilization	3	3
Hist.	213	History of U.S. and Pa.	3	3

Majors should select at least two courses from each group.

Electives:

Group I: AMERICAN HISTORY

			c.h.	s.h.
Hist.	254	Colonial Latin America	3	3
Hist.	255	Modern Latin America	3	3
Hist.	256	Pennsylvania History	3	3
Hist.	354	Contemporary American History	3	3
Hist.	355	Economic History of the U.S.	3	3
Hist.	359	History of the American Frontier	3	3
Hist.	360	Colonial America	3	3

Hist.	361	History of American Science and Technology	3	3
Hist.	367	Latin America and its World Relationships	3	3
Hist.	452	Diplomatic History of the U.S.	3	3
Hist.	456	Society and Thought in America to 1865	3	3
Hist.	457	Society and Thought in America since 1865	3	3

Group II: OTHER THAN AMERICAN HISTORY

Hist.	257	History of the Near East	3	3
Hist.	258	History of Asia—Ancient and Medieval	3	3
Hist.	259	History of Asia—Modern	3	3
Hist.	310	Ancient History	3	3
Hist.	320	Medieval History	3	3
Hist.	330	Europe during the Renaissance	3	3
Hist.	335	Europe during the Reformation	3	3
Hist.	340	History of Europe from 1660–1814	3	3
Hist.	345	History of Europe from 1815–1924	3	3
Hist.	357	History of England to 1689	3	3
Hist.	358	History of England since 1689	3	3
Hist.	365	History of Russia	3	3
Hist.	453	20th Century World History	3	3
Hist.	454	The British Commonwealth of Nations	3	3
Hist.	458	English Constitutional History	3	3

THE FIELD OF MATHEMATICS

(34 Semester Hours)

Thirty-four semester hours are needed for a major in Mathematics; no second field is required. A Secondary Education student with a major in some other field electing Mathematics as a second field must satisfactorily complete the following courses: Mathematics 171, 172, 271, 272, 371. An Elementary Education student electing a concentration in Mathematics must satisfactorily complete a minimum of 18 semester hours of Mathematics courses to include Mathematics 111 and 211.

Required:

			c.h.	s.h.
Math.	171	College Algebra and Trigonometry ...	4	4
Math.	172	Calculus with Analytic Geometry I ...	4	4
Math.	271	Calculus with Analytic Geometry II ..	4	4
Math.	272	Calculus with Analytic Geometry III ..	4	4
Math.	371	Modern Algebra I	3	3
Math.	372	Modern Algebra II	3	3

Electives:

Math.	352	Probability	3	3
Math.	355	History of Mathematics	3	3
Math.	357	Modern Geometry	3	3
Math.	358	Computer Principles I	3	3
Math.	359	Computer Principles II	3	3
Math.	452	Ordinary Differential Equations	3	3
Math.	454	Theory of Numbers	3	3
Math.	456	Mathematical Statistics	3	3
Math.	471	Advanced Calculus I	3	3
Math.	472	Advanced Calculus II	3	3
Math.	473	Elementary Topology	3	3

No second field required.

THE FIELD OF PHYSICS

(38 Semester Hours)

Required:

			c.h.	s.h.
Chem.	153	General Chemistry I	6	4
Chem.	154	General Chemistry II	6	4
**Ph.	258	Introductory Physics I	8	5
**Ph.	259	Introductory Physics II	8	5
*Ph.	351	Mechanics	6	4
*Ph.	352	Electricity and Magnetism	6	4
*Ph.	353	Atomic Physics	6	4
*Ph.	354	Optics	6	4

Electives:

			c.h.	s.h.
*Chem.	354	Physical Chemistry I	6	4
Geog.	453	Descriptive Astronomy	3	3
Ph.	254	History of Physics	3	3
Ph.	257	Laboratory Tech. in Physics	5	3
*Ph.	356	Heat	6	4
*Ph.	453	Physical Measurements	5	3

Ph.	455	Electronics	5	3
Ph.	457	Demonstration in Physics	5	3
*Ph.	458	Electrical Measurements	5	3
*Ph.	460	Major Concepts in Physics	3	3

*Mathematics 272 is a prerequisite.

**Mathematics 271 and Mathematics 272, Differential and Integral Calculus, should be scheduled concurrently with these courses.

Majors in the field should understand that Mathematics 272 must be preceded by Mathematics 151 and 152 or 171, and Mathematics 172 and 271.

Majors should not schedule Mathematics 112 or Physical Science 111 and 112 in their general education program.

THE FIELD OF RUSSIAN

(24 Semester Hours, excluding Russian 151 & 152)

Required:

			c.h.	s.h.
Russ.	255	Russian Civilization I	3	3
Russ.	256	Russian Civilization II	3	3
Russ.	351	Advanced Grammar & Composition ..	3	3

Electives:

			c.h.	s.h.
Russ.	253	Scientific Russian	2	2
Russ.	353	Russian Drama	3	3
Russ.	354	The Russian Novel	3	3
Russ.	355	Readings in Soviet Russian Literature .	3	3
Russ.	361	Dostoevsky	3	3
Russ.	451	Supervised Readings in Russian Literature	3	3

THE FIELD OF SOCIAL STUDIES

(48 Semester Hours)

Forty-eight semester hours are needed to complete the Comprehensive Social Studies Major. Of these 48 semester hours a minimum of 12 semester hours must be in history and a minimum of 6 semester hours in each of the following fields: Economics, Political Science, and Sociology. A total of 24 semester hours must be completed in any one field of the Social Studies, such as Anthropology, Economics, History, Political Science, or Sociology. Students are urged to take their hours of concentration in the field in which they intend to work after graduation.

No second field is required with the comprehensive social studies major. If a student with a major in another subject area (English, Library Science, etc.) wishes to seek a second field of concentration

in one of the Social Sciences, a total of 24 semester hours must be completed in a single field. There is no comprehensive Social Studies minor and the state will not certify teaching in Comprehensive Social Studies for 18 or 24 hours.

Required:

			c.h.	s.h.
Hist.	111	History of Ancient and Medieval Civilization	3	3
Hist.	112	History of Modern Civilization	3	3
Hist.	213	History of U.S. and Pa.	3	3
Econ.	211	Principles of Economics	3	3
Soc.	211	Principles of Sociology	3	3
P.S.	211	American Government	3	3

Elective:

Anth.	211	Anthropology	3	3
Anth.	213	Intro. to Bioanthropology	3	3
Anth.	214	Principles of Human Ecology	3	3
Anth.	354	Cultural History of Africa and Asia ..	3	3
Anth.	355	Aboriginal North America	3	3
Anth.	356	Field Archaeology		4
Anth.	357	Aboriginal South and Central America	3	3
Anth.	358	World Prehistory	3	3
Anth.	359	Primitive Science and Technology	3	3
Anth.	360	Introduction to Folklore	3	3
Anth.	400	Individual Research	2	2
Econ.	212	Principles of Economics II	3	3
Econ.	350	Microeconomic Theory	3	3
Econ.	352	Aggregative Economics	3	3
Econ.	353	Elements of Statistics	3	3
Econ.	354	Money and Banking	3	3
Econ.	355	Industrial Relations	3	3
Econ.	356	Government Regulations	3	3
Econ.	357	Public Utilities	3	3
Econ.	358	International Economic Relations	3	3
Econ.	359	Public Finance	3	3
Econ.	360	Comparative Economic Systems	3	3
Econ.	450	Managerial Economics	3	3

Econ.	451	Business Cycles	3	3
Econ.	452	History of Economic Thought	3	3
Econ.	453	Economics Seminar	3	3
Hist.	254	History of Latin America: Colonial Period	3	3
Hist.	255	History of Latin America: National Period	3	3
Hist.	256	History of Pennsylvania	3	3
Hist.	257	History of the Near East	3	3
Hist.	258	History of Asia—Ancient and Medieval	3	3
Hist.	259	History of Asia—Modern	3	3
Hist.	310	Ancient History	3	3
Hist.	320	Medieval History	3	3
Hist.	330	Europe During the Renaissance	3	3
Hist.	335	Europe During the Reformation	3	3
Hist.	340	History of Europe from 1660 to 1814	3	3
Hist.	345	History of Europe from 1815 to 1924 ..	3	3
Hist.	354	Contemporary American History	3	3
Hist.	355	Economic History of U.S.	3	3
Hist.	356	Contemporary European History	3	3
Hist.	357	History of England to 1689	3	3
Hist.	358	History of England since 1689	3	3
Hist.	359	History of the American Frontier	3	3
Hist.	360	Colonial America	3	3
Hist.	361	History of American Science and Technology	3	3
Hist.	365	History of Russia	3	3
Hist.	367	Latin America and Its World Relationships	3	3
Hist.	452	Diplomatic History of U.S.	3	3
Hist.	453	20th Century World History	3	3
Hist.	454	The British Commonwealth of Nations	3	3
Hist.	456	Society and Thought in America to 1865	3	3
Hist.	457	Society and Thought in America since 1865	3	3
Hist.	458	English Constitutional History	3	3
P.S.	210	Introduction to Political Science	3	3

P.S.	351	State and Local Government	3	3
P.S.	352	International Relations	3	3
P.S.	353	International Organization: Theory and Practice	3	3
P.S.	354	Constitutional Law of U.S.	3	3
P.S.	355	Political Parties & Elections	3	3
P.S.	365	Ancient and Medieval Political Thought	3	3
P.S.	366	Modern Political Thought	3	3
P.S.	375	Public Administration	3	3
P.S.	451	Comparative Government	3	3
P.S.	458	English Constitutional History	3	3
Soc.	351	Contemporary Social Problems	3	3
Soc.	352	Home and Family Living	3	3
Soc.	361	Sociology of Deviant Behavior	3	3
Soc.	362	Racial and Ethnic Minority Problems..	3	3
Soc.	363	Urban Sociology	3	3

THE FIELD OF SPANISH

(24 Semester Hours, excluding Spanish 151 & 152)

Required:

			c.h.	s.h.
Span.	255	Hispanic Civilization I	3	3
Span.	256	Hispanic Civilization II	3	3
Span.	351	Advanced Grammar & Composition ..	3	3

Elective:

			c.h.	s.h.
Span.	253	Commercial Spanish	2	2
Span.	352	Introduction to Spanish Literature	3	3
Span.	353	The Modern Spanish Drama	3	3
Span.	354	The Modern Spanish Novel	3	3
Span.	355	The "Generation of 1898"	3	3
Span.	359	The Literature of the Golden Age	3	3
Span.	360	Survey of Spanish American Lit.	3	3
Span.	361	The History of Mexican Literature ...	3	3
Span.	451	Supervised Reading in Hispanic Literature	3	3

THE FIELD OF SPEECH

(24 Semester Hours)

Required: (Four of the following)

			c.h.	s.h.
Sp.	113	Fundamentals of Speech	3	3
Sp.	251	Voice and Diction	3	3
Sp.	253	Introduction to the Theater	3	3
Sp.	256	Argumentation and Debate	3	3
Sp.	354	Introduction to Oral Interpretation ...	3	3

Elective:

Sp.	114	Advanced Public Speaking	2	2
Sp.	115	Parliamentary Procedure	1	1
Sp.	252	Introduction to Speech Correction	3	3
Sp.	254	Principles of Acting I	3	3
Sp.	255	Stagecraft and Lighting	3	3
Sp.	257	Advanced Debate	2	2
Sp.	264	Discussion	2	2
Sp.	311	Persuasion	3	3
Sp.	312	General Semantics	3	3
Sp.	350	Summer Drama Workshop	6	6
Sp.	351	Advanced Theater Production	6	6
Sp.	352	Play Direction	3	3
Sp.	358	Psychology of Speech	3	3
Sp.	359	History of the Theater	3	3
Sp.	361	Principles of Acting II	3	3
Sp.	362	Principles of Stage Design	3	3
Sp.	363	Theatrical Costume and Makeup	3	3
Sp.	411	Classical Rhetoric	3	3
Sp.	412	British Public Address	3	3
Sp.	451	Advanced Speech	3	3
Sp.	453	Applied Phonetics	3	3
Sp.	454	Radio and Television	5	3
Sp.	455	Creative Dramatics	3	3
Sp.	465	Advanced Oral Interpretation	2	2

Students seeking a concentration in the Field of Speech may follow the core of required courses with specialization in General Speech, Public Address, or Theater. Course requirements and sequences may be determined by the student with the help of his adviser.

SPECIAL FIELDS AND SERVICES

THE CURRICULUM IN LIBRARY SCIENCE

The State Council of Education on December 3, 1937, approved a curriculum for the education of school librarians at Clarion State College. Library science courses are offered as one of the elective fields for students in a four-year curriculum. In 1961 the State Council of Education also approved a twelve-semester hour curriculum for endorsement in elementary school librarianship. A valid teaching certificate in elementary education is a prerequisite. This endorsement is valid only in those grades designated for the elementary schools.

Students enrolled for the B.S. degree in Education with specialization in Library Science are required to complete 24 semester hours of course work in this area as part of the degree requirement. Upon completion of the degree program, the graduate will be certified to serve as a public school librarian in all grades of the public schools of the Commonwealth of Pennsylvania.

Clarion's library science program offers a series of courses which will (1) meet the State requirements for elementary and secondary school librarianship, (2) give pertinent training in school library techniques and management, (3) broaden the student's knowledge and training in the use of educational media, (4) meet the requirements for the Equivalent Master's Degree Certificate, and (5) provide the basis for further study leading to a graduate degree from an institution of the student's choice, and (6) qualify students as librarians for public library service. Students specializing in library science must also complete minimum requirements in one or more academic fields such as a foreign language, geography, mathematics, English, history, or earth and space science.

The degree program student begins his library science courses in the sophomore year. It is recommended that the student have at the minimum a "C" average to enter the program. (An average of "C" or better is required in library science courses; otherwise the student may be advised to withdraw from the program.) Also desirable is the ability to use a typewriter and a reading knowledge of a foreign language. The latter is particularly significant if the student plans to pursue a graduate degree after the completion of his undergraduate program.

THE CURRICULUM IN LIBRARY SCIENCE EDUCATION

(Sequence of courses subject to change
for administrative reasons.)

1st Semester				2nd Semester			
Eng.	111:	Composition I	3	Eng.	112:	Composition II	3
Ph.Sci.	111:	Basic I	3	Ph.Sci.	112:	Basic II	3
Biol.	111:	Basic	4	Sp.	113:	Fundamentals	3
Geog.	111:	Basic	3	Math.	112:	Basic	3
Hist.	112:	Modern Civ.	3	Hist.	213:	U.S.	3
HPE	112:	Phys. Ed.	2-1	HPE	111:	Health	3-2
			18-17				18-17
3rd Semester				4th Semester			
Art	111:	Visual Arts	3	Mus.	111:	Introduction	3
Eng.	213:	Introduction	3	Psy.	211:	General	3
L.S.	257:	Basic Reference	3	L.S.	256:	Adm. Sch. Lib.	3
L.S.	255:	Books & Libraries	2	L.S.*	258:	Selection Lib. Mtls.	3
L.S.	259:	Art for Sch. Lib.	2-1	HPE	212:	Phys. Ed.	2-1
HPE	211:	Phys. Ed.	2-1			Elective	3
		Elective	3				17-16
			18-16				
5th Semester				6th Semester			
Ed.	223:	Social Foundations	3	Psy.	222:	Educational	3
Psy.	321:	Adolescent	2	Ed.	211:	Methods in Acad. Fld.	3
Ed.	329:	Audio-Visual Ed.	3-2	L.S.**	359:	Curriculum Enr.	3
L.S.	356:	Lib. Mtls.—Y.P.	3	L.S.	357:	Cat. & Class.	3
		Electives	6			Electives	6
			17-16				18
7th Semester (or 8th)				8th Semester (or 7th)			
Ed.	422:	Prof. Pract. & Sch. Law	2	Econ.	211 or Soc. 211:	Anth. 211	3
Ed. 423, 424:		Libr. Pr. & St. Teach.	30-12	Phil.	211:	Introduction	3
			32-14	Geog.	257 or 254:	U.S. & Can. or Cons.	3
				P.S.	211:	Am. Govt.	3
				L.S.		Elective	5

* Prerequisite to L.S. 356 and 358.

** This course is a prerequisite to student teaching.

In order to be assigned to student teaching all library science majors must have completed courses 256, 257, 258, 259, 356, 357, 359 or their equivalents plus eighteen hours in a minor field plus the methods course in that field.

CURRICULUM FOR THE ELEMENTARY SCHOOL LIBRARY SCIENCE CONCENTRATION

(Sequence of courses subject to change
for administrative reasons.)

1st Semester				2nd Semester			
Eng.	111:	Composition I	3	Eng.	112:	Composition II	3
Ph.Sci.	111:	Basic I	3	Ph.Sci.	112:	Basic II	3
Hist.	213:	U.S. & Pa.	3	Art	011:	Fundamentals	2-1
Math.	111:	Basic	3	Biol.	111:	Basic	4
Geog.	111:	Basic	3	Sp.	113:	Fundamentals	3
HPE	112:	Phys. Ed.	2-1	HPE	111:	Health	2
			17-16				17-16
3rd Semester				4th Semester			
Eng.	213:	Introduction to Lit.	3	Ed.	223:	Social Found.	3
Psy.	211:	General	3	Art	111:	Visual Arts	3
Mus.	131:	Lit. & Mtls. I (El.)	3	Mus.	132:	Lit. & Mtls. II (El.)	3
Eng.	331:	Child Lit.	3	Hist.	112:	Modern Civ.	3
Art	231:	Studio Experiences	3-2	Art	222:	Teach Art El. Grad.	3-2
HPE	211:	Phys. Ed.	2-1	HPE	223:	Phys. Ed.	2-1
L.S.	256:	Adm. of Sch. Lib.	3	L.S.*	258:	Sel. of Lib. Mtls.	3
			20-18				20-18
5th Semester				6th Semester			
Pay.	320:	Human Growth & Dev.	5	El.Ed.	325:	Modern Curr. & Meth.	5
El.Ed.	324:	Teaching of Arith.	3	El.Ed.	323:	Teach. of Reading	3
Sci.	231:	Fused Science	3	Geo.	257 or 254:	U.S. & Can. or Cons.	3
L.S.	358:	Lib. Mtls. Child.	2	Sci.	222:	Teaching Sci. El. Gr.	2
L.S.	357:	Cat. & Class.	3	L.S.**	359:	Curriculum Enrich.	3
			16-16				16-16
7th Semester (or 8th)				8th Semester (or 7th)			
P.S.	211:	American Govt.	3	El.Ed.	423, 424:	St. Teaching & Libr. Pr.	30-12
Phil.	211:	Introduction	3	El.Ed.	422:	Prof. Pract. & Sch. Law	2-2
Soc.	211 or Econ. 211:	Anth. 211	3				32-14
Ed.	329:	Audio-Visual Ed.	3-2				
L.S.	257:	Reference	3				
		Elective	3				
			18-17				

* Prerequisite to L.S. 356 and 358.

** This course is a prerequisite to student teaching.

THE FIELD OF LIBRARY SCIENCE

(24 Semester Hours)

Required:		c.h.	s.h.
L.S.	255 History of Books and Libraries	2	2
L.S.	256 Administration of School Libraries	3	3
L.S.	257 Basic Reference Sources and Services ..	3	3
L.S.	258 Selection of Library Materials	3	3
L.S.	259 Art for Librarians	2	1
L.S.	356 Library Materials for Young People ..	3	3
L.S.	357 Cataloging and Classification	3	3
L.S.	359 Curriculum Enrichment	3	3
Electives:		c.h.	s.h.
L.S.	358 Library Materials for Children	3	3
L.S.	455 Non-Book Materials as Library Resources	3	3
L.S.	456 Administration of the District Materials Center	3	3
L.S.	457 Independent Study Seminar		1-3

EQUIVALENT MASTER'S DEGREE CERTIFICATE

The Department of Library Science offers preparation for the Equivalent Master's Degree Certificate, issued by the Department of Public Instruction of the Commonwealth of Pennsylvania, which may be secured upon the satisfactory completion of 30 semester hours of approved courses. This preparation may be completed in three to four summers. The candidate must possess an earned Bachelor's degree and hold a College Certificate or Equivalent College Certificate in order to pursue this program.

ELEMENTARY SCHOOL LIBRARIANSHIP PROGRAM

(18 Semester Hours)

Required:		c.h.	s.h.
L.S.	256 Administration of School Libraries	3	3
L.S.	257 Basic Reference Sources and Services ..	3	3
L.S.	258 Selection of Library Materials	3	3
L.S.	357 Cataloging and Classification	3	3
L.S.	358 Library Materials for Children	3	3
L.S.	359 Curriculum Enrichment	3	3

Elementary majors choosing library science to fulfill the concentration requirement may wish to schedule more than 18 hours in the field. An additional 6 hours of approved courses in Library Science will complete their certification and qualify them for work in secondary school libraries.

Elementary teachers with a valid College Certificate in elementary education may have their certificates endorsed in Library Science upon completion of 12 semester hours in this field, including L.S. 256, 258, 357, and 358.

THE CURRICULUM IN PUBLIC SCHOOL NURSING

(60 Semester Hours)

The curriculum in public school nursing, open only to persons who are Registered Nurses, leads to the degree of Bachelor of Science in Public School Nursing.

GENERAL EDUCATION

			c.h.	s.h.
Eng.	111	Freshman Composition I	3	3
Eng.	213	Introduction to Literature	3	3
Sp.	113	Fundamentals of Speech	3	3
Hist.	112	History of Modern Civilization	3	3
Hist.	213	History of U.S. and Pa.	3	3
P.S.	211	American Government	3	3
Soc.	211	Principles of Sociology	3	3
		Electives		11
Total			32

PROFESSIONAL EDUCATION

Ed.	223	Social Foundations of Education	3	3
Psy.	211	General Psychology	3	3
Psy.	222	Educational Psychology	3	3
Psy.	321	Psychology of Adolescence	2	2
Ed.	329	Audio-Visual Education	3	2
Total			13

SPECIALIZED EDUCATION

N.	351	Public School Nursing	3	3
N.	352	Specialized Health Problems of School Aged Children	3	3
N.	353	Family Case Work	3	3
N.	354	Public Health Nursing	3	3
S.E.	211	General Safety Education	3	3
Total			15

SAFETY EDUCATION PROGRAM

(12 Semester Hours)

Required:

			c.h.	s.h.
S.E.	351	Driver Education and Traffic Safety . . .	3	3
S.E.	211	General Safety Education	3	3

Elective:

			c.h.	s.h.
S.E.	212	Organization and Administration of Safety Education	3	3
S.E.	213	Materials and Methods of Teaching Safety in the Secondary Schools	3	3
S.E.	214	The Psychology of Accident Prevention	3	3
S.E.	215	Visual and Other Aids in Safety Education	3	3

Any college certificate may be extended to include Driver Education and General Safety Education by completion of 12 semester hours of above courses. However, such course work will not fulfill second field requirements for secondary majors or concentration requirements for elementary majors.

DEGREE PROGRAMS IN SPECIAL EDUCATION

TEACHING THE MENTALLY RETARDED

Professional Education and Area of Specialization—Mental Retardation (Required of all Mental Retardation Majors)

Ed.	223	Social Foundations of Education	3
Ed.	329	Audio-Visual Education	2
Psy.	320	Human Growth and Development	5
El. Ed.	323	Teaching of Reading	3
El. Ed.	324	Teaching of Arithmetic	3
SPA	334	Speech Correction for the Classroom Teacher . .	3
Sp. Ed.	111	Education of Exceptional Children	3
Sp. Ed.	220	Nature of Mental Retardation	3
Sp. Ed.	221	Neurological Impairment	3
Sp. Ed.	321	Curriculum Development for Exceptional Children (M.R.)	3
Sp. Ed.	322	Educational Appraisal in Mental Retardation . .	3

Sp. Ed.	422	Methods of Teaching Exceptional Children (M.R.)	3
Sp. Ed.	424	Laboratory Methods with Exceptional Children (M.R.)	3
Ed.	422	Professional Practicum	2
Sp. Ed.	429	Student Teaching	12

RECOMMENDED ELECTIVES 14 sem. hrs.

Sp. Ed.	423	Curriculum Materials for Exceptional Children	3
Psy.	251	Experimental Psychology	3
Psy.	321	Adolescent Psychology	2
Psy.	323	Mental Hygiene	3
Psy.	332	Psychology of Exceptional Children	3
Psy.	334	Abnormal Psychology	3
Psy.	335	Social Psychology	3
Psy.	451	Quantitative Methods in Psychology and Education	3
Psy.	452	Physiological Psychology	3
Psy.	454	Personality	3
Psy.	455	Psychology of Learning	3
Psy.	456	Introduction to Psychological Testing	3
Psy.	458	Sensation and Perception	3
Psy.	464	Introduction to Clinical Psychology	3
El. Ed.	332	Nursery-Kindergarten Education	3
Eng.	331	Children's Literature	3
Art	233	Art Crafts	3
Art	312	Handicrafts	3
Art	231	Studio Experiences in Art Processes	2
Biol.	259	Physiology	3
Soc.	352	Home and Family Living	3
Soc.	351	Contemporary Social Problems	3
Anth.	211	Anthropology	3
Soc.	361	Sociology of Deviant Behavior	3
SPA	231	Hearing Problems	3
Mus.	131	Literature and Materials of Music I	3
Mus.	132	Literature and Materials of Music II	3
Geog.	256	Geography of Pennsylvania	3

Note: For General Education requirements in Teaching the Mentally Retarded see pp. 45-46.

THE CURRICULUM IN SPECIAL EDUCATION

(Mental Retardation)

(Sequence of courses subject to change
for administrative reasons)

1st Semester				2nd Semester			
Eng.	111:	Composition I	3	Eng.	112:	Composition II	3
Ph.Sci.	111:	Basic I	3	Ph.Sci.	112:	Basic II	3
Math.	111:	Basic	3	Biol.	111:	Basic	4
Geog.	111:	Basic	3	Sp.	113:	Fundamentals	3
Art	111:	Visual Arts	3	Sp.Ed.	111:	Educ. of Exc. Children	3
HPE	111:	Health	2	HPE	112:	Physical Education	2-1
			17-17				18-17
3rd Semester				4th Semester			
Psy.	211:	General Psychology	3	Psy.	320:	Human Growth	5
Eng.	213:	Intro. to Lit.	3	Ed.	223:	Social Foundations	3
Mus.	111:	Introduction	3	Hist.	112:	Modern Civilization	3
Hist.	213:	U.S. and Pa. Hist.	3	Sp.Ed.	221:	Neurol. Impairment	3
Sp.Ed.	220:	Nature of M. R.	3	HPE	212:	Physical Educ.	2-1
HPE	211:	Physical Educ.	2-1				3
			17-16				19-18
5th Semester				6th Semester			
Phil.	211:	Introduction	3	El.Ed.	324:	Teaching of Arith.	3
El.Ed.	323:	Teaching of Reading	3	Geog.	254 or 257:	Cons. or U.S., Can.	3
Sp.Ed.	321:	Curriculum Dev.	3	SPA	334:	Sp. Corr. for Class. Teach.	3
Sp.Ed.	322:	Education. Appraisal	3	Sp.Ed.	422:	Methods	3
			3	Ed.	329:	A-V Education	3-2
			15-15				3
7th Semester (or 8th)				8th Semester (or 7th)			
P.S.	211:	American Gov.	3	Sp.Ed.	429:	Student Teaching	30-12
Soc. 211 or Econ.	211:	Anth.	3	Ed.	422:	Professional Prac.	2-2
Sp.Ed.	424:	Lab. Methods	3				32-14
			6				
			15-15				

PROFESSIONAL EDUCATION—SPEECH PATHOLOGY AND AUDIOLOGY

(Required of all Speech Correction Majors)

			c.h.	s.h.
Ed.	223	Social Foundations of Education	3	3
Ed.	329	Audio-Visual Communication	3	2
Ed.	422	Professional Practicum including School Law	2	2
El. Ed.	323	Teaching of Reading	3	3
Psy.	320	Human Growth and Development	5	5
Psy.	323	Mental Hygiene	3	3
SPA	422	Student Teaching with Speech & Hearing Handicapped	30	12

THE FIELD OF SPEECH PATHOLOGY AND AUDIOLOGY

(Speech Correction)

(24 Semester Hours)

This program provides the academic background necessary for graduate study in Speech Pathology and Audiology.

Required:

			c.h.	s.h.
Spec. Ed.	111	Education of Exceptional Children	3	3
SPA	231	Hearing Problems	3	3
SPA	232	Clinical Phonetics	3	3
SPA	233	Anatomy of Speech and Hearing Mechanism	3	3
SPA	253	Speech Problems	3	3
SPA	331	Speech and Hearing Clinic I: Practicum	7½	3
SPA	356	Speech Pathology	3	3
SPA	421	Speech Reading and Auditory Training	3	3

Electives: (14 Semester hours)

			c.h.	s.h.
SPA	332	Speech & Hearing Clinic II: Advanced Practicum	7½	3
SPA	432	Audiology	3	3
SPA	333	Curriculum Materials for Speech Correction	3	3
Ed.	224	Educational Tests and Measurements . .	3	3
Ed.	425	Diagnostic and Remedial Reading . . .	3	3
Eng.	331	Children's Literature	3	3
Eng.	457	Introduction to Linguistics	3	3
Math.	161	College Algebra and Trigonometry . . .	5	5
Math.	221	Elements of Statistics	3	3
Math.	358	Computer Principles I	3	3
Psy.	251	Experimental Psychology	3	3
Psy.	334	Abnormal Psychology	3	3
Psy.	335	Social Psychology	3	3
Psy.	331	Child Psychology	3	3
Psy.	452	Physiological Psychology	3	3
Psy.	455	Psychology of Learning	3	3

Psy.	451	Quantitative Methods in Psychology . . .	3	3
Anth.	211	Anthropology	3	3
Spec. Ed.	221	Neurological Impairment	3	3
Spec. Ed.	220	Nature of Mental Retardation	3	3
Spec. Ed.	322	Education Appraisal in Mental Retardation	3	3
Sp.	252	Introduction to Speech Correction . . .	3	3
Sp.	251	Voice and Diction	3	3
Sp.	312	General Semantics	3	3
Sp.	358	Psychology of Speech	3	3
Sp.	451	Advanced Speech	3	3
Sp.	453	Applied Phonetics	3	3
Phil.	111	Elementary Logic	3	3

Note: For General Education requirements in Speech Pathology and Audiology see pp. 45-46.

THE CURRICULUM IN SPEECH PATHOLOGY AND AUDIOLOGY

(Sequence of courses subject to change for administrative reasons)

1st Semester				2nd Semester			
Eng.	111:	Composition I	3	Eng.	112:	Composition II	3
Ph.Sci.	111:	Basic Physical Sci. I . . .	3	Ph.Sci.	112:	Basic Phy. Sci. II . . .	3
HPE	112:	Physical Education . . .	2-1	HPE	211:	Physical Education . . .	2-1
Math.	111:	Basic Mathematics . . .	3	Geog.	111:	Basic Phy. Geog.	3
Sp.	113:	Fundamentals of Sp. . .	3	Sp.Ed.	111:	Ed. of Ex. Ch.	3
Hist.	112:	Modern Civ.	3	Biol.	111:	Basic Biol. Sci.	4
			17-16				18-17
3rd Semester				4th Semester			
SPA	253:	Speech Problems	3	SPA	356:	Speech Pathology . . .	3
SPA	232:	Clinical Phonetics . . .	3	SPA	233:	Anat. of Sp. & Hrng. Mech.	3
Psy.	211:	General Psychology . . .	3	Psy.	320:	Human Growth and Dev.	5
Eng.	213:	Intro. to Lit.	3	Geog.	257 or	Geog. 254: U.S. & Can. or Cons. of Nat. Re. . .	3
HPE	111:	Health Education . . .	2	Ed.	223:	Soc. Found. of Ed. . .	3
		Elective	3				17-17
			17-17				18-18
5th Semester				6th Semester			
SPA	231:	Hearing Problems . . .	3	SPA	421:	Sp. Rdng. & Aud. Trng.	3
SPA	331:	Sp. & Hrng. Clinic I: Practicum	7½-3	Pay.	323:	Mental Hygiene	3
Hist.	213:	Hist. of U.S. & Pa. . .	3	Art	111:	Visual Arts	3
Mus.	111:	Intro. to Music	3	El.Ed.	323:	Teaching of Reading . .	3
HPE	212:	Physical Education . . .	2-1			Electives	6
		Elective	3				18-18
			21½-16				
7th Semester (or 8th)				8th Semester (or 7th)			
Phil.	211:	Intro. to Phil.	3	SPA	422:	Student Teaching with Sp. & Hrng. Handi-capped	30-12
P.S.	211:	American Gov.	3	Ed.	422:	Pro. Practicum including School Law . .	2
Soc.	211:	Prin. of Soc. or Econ. 211 or Anth. 211 . .	3				32-14
Ed.	329:	Audio-Visual Com. . . .	3-2				
		Electives	6				
			18-17				

VENANGO CAMPUS ELEMENTARY COURSE OFFERINGS

(Sequence of courses subject to change
for administrative reasons.)

1st Semester			2nd Semester		
Eng.	111:	Composition I	Eng.	112:	Composition II
Sp.	113:	Speech	Biol.	111:	Basic
Hist.	112:	Modern Civilization	Hist.	213:	U.S. & Pa.
Geog.	111:	Basic	Art	011:	Fundamentals
Ph.Sci.	111:	Basic I	Ph.Sci.	112:	Basic II
Math.	111:	Basic (Elem.)	HPE	111:	Health
3rd Semester			4th Semester		
Eng.	213:	Intro. to Literature	Geog.	257:	U.S. & Canada
Psy.	211:	General Psychology	Psy.	222:	Educational Psychology
Mus.	131:	Lit. & Mat. I	Mus.	132:	Lit. & Mat. II
Soc.	211:	Prin. of Sociology (or)	P.S.	211:	American Government
Econ.	211:	Prin. of Economics	Art	111:	Visual Arts
Ed.	223:	Soc. Found. of Educ.	Art	222:	Teach. Art Elem. Gr.
Art	231:	Studio Experiences			

VENANGO CAMPUS SECONDARY COURSE OFFERINGS

(Sequence of courses subject to change
for administrative reasons.)

1st Semester			2nd Semester		
Eng.	111:	Composition I	Eng.	112:	Composition II
Hist.	112:	Modern Civilization	Hist.	213:	U.S. & Pa.
Geog.	111:	Basic	Sp.	113:	Speech
Ph.Sci.	111:	Basic I (or)	Ph.Sci.	112:	Basic II (or)
Chem.	151:	Inorganic I	Chem.	152:	Inorganic II
Math.	112:	Basic (Sec.) (or)	Biol.	111:	Basic (or)
Math.	151:	College Algebra	Math.	171:	Col. Alg. & Trig.
HPE	111:	Health			
3rd Semester			4th Semester		
Eng.	213:	Intro. to Literature	P.S.	211:	American Government
Psy.	211:	General Psychology	Psy.	222:	Educational Psychology
Mus.	111:	Introduction to Music	Art	111:	Visual Arts
Soc.	211:	Prin. of Sociology (or)	Geog.	257:	U.S. & Canada (or)
Econ.	211:	Prin. of Economics	Geog.	254:	Cons. of Natl. Res.
Ed.	223:	Social Found. of Ed.			

Electives

Eng.	251:	English Literature	Math.	271:	Calc. with Anal.
Hist.	111:	Ancient Civilization	Geom.	II	
Ph.	251:	General Physics I	Eng.	252:	American Literature
Biol.	263:	Zoology	Eng.	355:	Novel since 1870
Fr.	151:	Elementary French I	Ph.	252:	General Physics II
Fr.	251:	Intermediate French I	Biol.	264:	Botany
Span.	151:	Elem. Spanish I	Fr.	152:	Elementary French II
Span.	251:	Intermediate Spanish I	Fr.	252:	Intermediate French II
Chem.	251:	Organic Chem. I	Span.	151:	Elem. Spanish II
Psy.	331:	Child Psychology	Span.	252:	Intermediate Spanish II
Ph.	258:	Introductory Physics	Chem.	252:	Organic Chem. II
Sp.	251:	Voice & Diction	Psy.	321:	Psych. of Adolescence
Mus.	255:	Ear Trng. & Sight	Ph.	259:	Introductory Physics
			Sp.	114:	Adv. Pub. Speaking
			Mus.	258:	Hist. of Music II
Math.	172:	Calculus with Anal.	Math.	272:	Calc. with Anal.

BUSINESS ADMINISTRATION

Objectives of the Curriculum

The curriculum leading to the degree of Bachelor of Science in Business Administration is designed to assist students in arriving at a better understanding of the complex relationships inherent in the rapidly changing world of business, industry, and government; to provide educational experiences that will help students develop their potentialities for leadership and service; to help stimulate the growth of students as individuals and citizens; and to provide a qualitative environment in which educational enrichment can take place.

Supplemented by broad general requirements in the humanities, the social sciences, and the natural sciences, which provide the liberalizing framework essential for real educational development, the business curriculum offers a well balanced program of courses in business administration which not only will help to prepare students for careers in business, industry, and government but also will give preparatory training to students who plan to further their education through graduate study in business or law.

Although there is opportunity to develop some depth in certain business areas, such as accounting, economics, and general business administration, the emphasis in the program is not on deep specialization but rather on the development of analytical ability, intellectual toughness, imagination, the ability to communicate ideas—and adaptability, so that technological change does not render the education obsolete.

Admission and Fees

Admission to the business administration program is governed by the college admissions policy on pages 25–27 of this catalog.

All fees and other charges for the business administration program are the same as those listed on pages 31–35.

Scholarship Requirements

The scholarship requirements for business administration students are identical to those of all other students in Clarion State College, summarized on pages 27–29.

THE CURRICULUM

Semester hour credits required for the degree of Bachelor of Science in Business Administration:

General Education:	64 credits
Business Foundation Subjects:	33 credits
Business Areas of Concentration:	15–18 credits
Free Electives:	13–16 credits
Total required for graduation:	128 credits

General Education

64 credits

1. **English Composition:** 6 credits
2. **Humanities:** 18 credits distributed as follows:
 - a. Literature: 6 credits
 - b. Philosophy: 3 credits
 - c. Speech: 3 credits
 - d. Art, Music, Theater Arts, or Foreign Language: 6 credits in one field
3. **Natural Sciences and Mathematics:** 12 credits distributed as follows:
 - a. Mathematics: 3-6 credits
 - b. Natural Sciences: 6-9 credits with a minimum of 6 credits from one of the following fields: biology, chemistry, physical geography, geology, physical science, physics.
4. **Social Sciences:** 24 credits distributed as follows:
 - a. Principles of Economics: 6 credits
 - b. History: 6 credits
 - c. Political Science: 3 credits
 - d. General Psychology: 3 credits
 - e. Sociology: 3 credits
 - f. Elective: 3 additional credits in political science, psychology, or sociology
5. **Health and Physical Education:** 4 credits

Business Foundation Subjects

33 credits

The courses included as Foundation Subjects have been selected with three primary objectives in mind: (1) To give students an insight into the major functions of organizations whether they be private business firms or local, state, or federal governmental agencies; (2) To give students an understanding of the major problems within organizations as they pursue their goals; and (3) To assist students in using the insights and methods of the humanities, social sciences, and natural sciences to analyze and illuminate these problems. Each of the Foundation Subjects either deals with an important aspect of organization or provides a tool which can be used in attacking problems that individuals face in organizations.

The following foundation courses are required of all business administration students:

1. **Accounting:** 6 credits
Bus. Ad. 151, 152: Principles of Accounting I, II. 3 credits each.
2. **Economics:** 6 credits
Econ. 352: Aggregative Economics. 3 credits.
Econ. 450: Managerial Economics. 3 credits.

Note: Econ. 211, 212: Principles of Economics I, II are pre-requisites to both of the above courses.

3. **Finance:** 3 credits
Bus. Ad. 365: Financial Institutions.
4. **Business Law:** 3 credits
Bus. Ad. 362: The Legal Environment.
5. **Marketing:** 3 credits
Bus. Ad. 364: Principles of Marketing.
6. **Organization:** 9 credits
Bus. Ad. 361: Organization Theory and Methods. 3 credits.
Psy. 453: Industrial Psychology. 3 credits.
Note: Psy. 211: General Psychology is prerequisite to this course.
Econ. 355: Industrial Relations. 3 credits.
Note: Econ. 211, 212: Principles of Economics I, II are prerequisites to this course.
7. **Statistics:** 3 credits
Econ. 353: Elements of Statistics
Note: Econ. 211: Principles of Economics I is prerequisite to this course.

Areas of Concentration 15-18 credits

The areas are **Accounting, Economics, and General Business Administration**. The requirements for a major in each area are listed below:

1. **Accounting:** 18 credits
Bus. Ad. 251, 252: Intermediate Accounting I, II. 3 credits each.
Bus. Ad. 302: Tax Accounting. 3 credits.
Bus. Ad. 351: Administrative Controls and Analyses. 3 credits.
Bus. Ad. 363: Principles of Management. 3 credits.
Math. 358: Computer Principles I. 3 credits.
2. **Economics:** 15 credits
Econ. 360: Comparative Economic Systems. 3 credits.
Econ. 452: History of Economic Thought. 3 credits.
Econ. 453: Economics Seminar. 3 credits.
Bus. Ad. 363: Principles of Management. 3 credits.
Math. 358: Computer Principles I. 3 credits.
3. **General Business Administration:** 15 credits
Bus. Ad. 363: Principles of Management. 3 credits.
Bus. Ad. 464: Personnel Management. 3 credits.
Bus. Ad. 465: Marketing Problems. 3 credits.
Bus. Ad. 466: Financial Problems. 3 credits.
Math. 358: Computer Principles I. 3 credits.

Free Electives

13-16 credits

The number of credits available for free electives depends on the area of concentration.

For students majoring in Accounting, free electives will be 13 credits. For students majoring in Economics or General Business Administration, free electives will be 16 credits.

Typical Program for Business Administration Students

1st Semester			
Eng. 111:	Composition I	3 cr.	
Econ. 211:	Principles I	3 cr.	
Bus.Ad. 151:	Prin. of Account- ing I	3 cr.	
Math. 112:	Basic Mathematics or		
Math. 151:	College Algebra . . .	3 cr.	
HPE 111:	Health Education . .	2 cr.	
Sp. 113:	Fundamentals of Speech	3 cr.	
			17

3rd Semester			
Psy. 211:	General Psychology .	3 cr.	
Econ. 351:	Managerial Econ. . .	3 cr.	
	Natural Science or		
	Mathematics	3 cr.	
	Philosophy	3 cr.	
	Art, Music,		
	Theater Arts	3 cr.	
	Physical Education .	1 cr.	
			16

Note: Accounting majors will substitute Bus. Ad. 251: Intermediate Accounting I for one of the above courses.

5th Semester			
Bus.Ad. 361:	Org. Theory and		
	Methods	3 cr.	
Econ. 355:	Industrial		
	Relations	3 cr.	
Bus.Ad. 363:	Principles of		
	Management	3 cr.	
	Literature	3 cr.	
	History	3 cr.	
	Natural Science or		
	Mathematics	3 cr.	
			18

7th Semester			
Bus.Ad. 365:	Financial		
	Institutions	3 cr.	
	Social Science		
	Elective	3 cr.	
	Business Major . . .	3 cr.	
	Free Electives	3-6 cr.	
			12-15

2nd Semester			
Eng. 112:	Composition II . . .	3 cr.	
Econ. 212:	Principles II	3 cr.	
Bus.Ad. 152:	Prin. of Account- ing II	3 cr.	
Econ. 353:	Elem. of Statistics .	3 cr.	
	History	3 cr.	
	Physical Education .	1 cr.	
			18

4th Semester			
Econ. 352:	Aggregative Econ. .	3 cr.	
Psy. 453:	Industrial		
	Psychology	3 cr.	
Soc. 211:	Prin. of Sociology .	3 cr.	
	Literature	3 cr.	
	Art, Music, or		
	Theater Arts	3 cr.	
	Natural Science . . .	3 cr.	
			18

Note: Accounting majors will substitute Bus. Ad. 252: Intermediate Accounting II for one of the above courses.

6th Semester			
Bus.Ad. 364:	Principles of		
	Marketing	3 cr.	
Bus.Ad. 362:	The Legal		
	Environment	3 cr.	
Math. 358:	Computer		
	Principles I	3 cr.	
	Political Science . .	3 cr.	
	Free Elective	3 cr.	
			15

8th Semester			
	Business Major . . .	6-10 cr.	
	Free Electives	5- 9 cr.	
			13-16

LIBERAL ARTS AND SCIENCES

Objectives and Characteristics

The undergraduate program in the arts and sciences at Clarion State College has two fundamental purposes:

1. To provide the student with a broad general education that will enable him to adapt to the complexities of the world in which he must live; that will give him an understanding and appreciation of the intellectual, cultural, and moral forces which have shaped our world; and that will engender in him an intellectual awareness which will make him strive for educational growth throughout his life.
2. To give the student the depth of knowledge in a discipline that will enable him to enter a graduate or professional school or that will provide him with the proper foundation for a career in government, social service, or industry.

To help achieve these objectives the program of the candidate for the Bachelor of Arts degree is divided into three categories: (1) **General Education**. He completes a series of general education requirements in the Humanities (English, music, art, language, etc.), the Social Sciences (history, political science, economics, etc.), and the Natural Sciences (biology, mathematics, geology, etc.). (2) **Area of Concentration**. As his interests direct, he chooses a major area of concentration within the Humanities, Social Sciences, or Natural Sciences and develops a program in depth with the assistance of a departmental advisor. (3) **Electives**. He takes a number of electives, usually after consultation with an advisor, in subject areas of his own choice.

Concerned primarily with intellectual growth, the curriculum in the Liberal Arts and Sciences at Clarion recognizes the individual nature of this growth and the importance of personal ideals and moral values. Consequently, the plan for the curriculum provides a framework within which each student selects his own program with counsel from a faculty advisor.

Admission and Fees

Admission to the liberal arts and sciences program is governed by the admissions policy presented on pages 25-27 of the bulletin. The fees for the liberal arts program are the same as those listed on pages 31-35.

Scholarship Requirements

The scholarship requirements for students in the Liberal Arts and Sciences are identical with those of all other students in Clarion State College summarized on pages 27-29.

THE CURRICULUM

Semester Hours Credit Required For Graduation—128

General Education

The following general requirements must be met by all candidates for the Bachelor of Arts degree regardless of their area of concentration:

1. **English Composition:** 6 credits

English 111

English 112

2. **Foreign Language**

This requirement may be satisfied in one of the following ways:

- a. By an adequate score on a language placement examination administered by the Foreign Language Department. Note: Credit is not granted for exemptions made as a result of the placement examination.
- b. By passing French, German, Russian, or Spanish 252.

3. **Health and physical education:** 4 credits

4. **Humanities:** 15 credits

This requirement applies only to Liberal Arts students majoring in the Social Sciences or the Natural Sciences and Mathematics. Humanities majors must meet the requirements listed on pages 79-81.

- a. A minimum of 3 credits in each of the following fields with at least 6 credits in one of them:

Literature

English 213

Introduction to Literature

English 251

English Literature

English 252

American Literature

Philosophy

Philosophy 211

Introduction to Philosophy

Philosophy 212

Ethics

Philosophy 255

History of Philosophy I

Philosophy 256

History of Philosophy II

- b. Six credits in the Fine Arts, including 3 credits from at least two of the following fields:

Art

Art 111

The Visual Arts

Art 112

History of Art I

Art 113

History of Art II

Music

Music 111: Introduction to Music

Music 257: History of Music I (for non-music majors)

- Music 258: History of Music II (for non-music majors)
 Music 151: History and Literature of Music I (for music majors, or by permission)
 Music 152: History and Literature of Music II (for music majors, or by permission)

NOTE: Music 151–152: History and Literature Music I–II (for music majors, or by permission) assumes a rather extensive musical background.

Theatre Arts or Speech

- | | |
|------------|-----------------------------|
| Speech 113 | Fundamentals of Speech |
| Speech 251 | Voice and Diction |
| Speech 253 | Introduction to the Theatre |

5. Natural Sciences and Mathematics: 15 credits

This requirement applies only to students majoring in the Humanities and Social Sciences. Natural Sciences and Mathematics majors must meet the requirements listed on pages 81–83.

a. Three credits in mathematics or logic:

- | | |
|-----------------|-------------------|
| Mathematics 111 | Basic Mathematics |
| Mathematics 151 | College Algebra |
| or | |
| Philosophy 111 | Elementary Logic |

b. Twelve additional credits chosen from the following fields with at least 6 credits in one field:

Biology

- | | |
|-------------|--------------------------|
| Biology 111 | Basic Biological Science |
| Biology 153 | General Biology I |
| Biology 154 | General Biology II |

Chemistry

- | | |
|---------------|----------------------|
| Chemistry 153 | General Chemistry I |
| Chemistry 154 | General Chemistry II |

Earth Science

- | | |
|------------------|---------------------------|
| Geography 111 | Basic Physical Geography |
| Geography 252 | Geology |
| Geography 253 | Geomorphology |
| Geography 353 | Descriptive Astronomy |
| Phy. Science 111 | Basic Physical Science I |
| Phy. Science 112 | Basic Physical Science II |

Mathematics

- | | |
|-----------------|----------------------------------|
| Mathematics 111 | Basic Mathematics |
| Mathematics 151 | College Algebra |
| Mathematics 152 | College Trigonometry |
| Mathematics 171 | College Algebra and Trigonometry |

Physics

- | | |
|-------------|--------------------|
| Physics 251 | General Physics I |
| Physics 252 | General Physics II |

6. Social Sciences: 15 credits

This requirement applies only to Humanities and Natural Science and Mathematics majors. Social Science majors must meet the requirements listed on pages 83-85.

a. Six credits in history:

History 111	History of Ancient and Medieval Civilization
History 112	History of Modern Civilization
History 213	History of United States and Pennsylvania

b. Three credits in economics and three credits in political science:

Economics 211	Principles of Economics I
Political Science 210	Principles of Political Science
Political Science 211	American Government

c. Three credits in one of the following fields:

Sociology 211	Principles of Sociology
Anthropology 211	Anthropology
Psychology 211	General Psychology

MAJORS IN THE HUMANITIES

The Program for the Bachelor of Arts degree with a major in one of the areas of the Humanities combines a broad requirement in general education with advanced study in at least one of the following disciplines: foreign languages, literature, music, philosophy, speech, and theater arts.

In general, the fields within this area are concerned with two things. First, they are concerned with the fundamental purposes, beliefs, and ideals which underlie all human experience and bind it together. The student, therefore, becomes acquainted in depth with the intellectual endeavors, the aesthetic expressions, and the moral strivings that have defined human experience. Second, the Humanities are concerned with aiding the student to acquire the skills, sensitivities, and canons of taste essential to appraising, judging, and creating within his field.

THE PROGRAM

A. Area Requirements

STUDENTS MUST COMPLETE A MINIMUM OF 54 CREDITS IN THE HUMANITIES, NOT COUNTING THE 14 CREDIT REQUIREMENT IN FOREIGN LANGUAGES TAKEN BY ALL LIBERAL ARTS STUDENTS.

Students who elect to concentrate in the Humanities are required to take a minimum of 15 credits in general education within the humanities. Each of the following subject fields must be represented:

art, English, music, philosophy, and speech and theater arts. (Courses in a student's subject major **should not** be included in this 15 credit requirement.)

B. Majors

Within the Humanities a student may major in one of the following fields. Since the courses are those recommended by the department involved, variations from the listed pattern should be made only in consultation with the department.

English: 36 credits beyond English 111, 112

Strongly recommended:

Two from among the following: English 455, 453, 255, and 353;

Two from among the following: English 256, 354, 454.

Three from among the following, **two of which must be in American Literature:** English 261, 262, 263, 257, 355.

Two from among the following: English 451, 452, 457, 458, 459.

Foreign Languages

30 credits

Language 151, 152 do not count toward the major.

Required for all languages: 251, 252, 255, 256, 351.

French: A minimum of 15 additional credits elected from 353, 354, 355, 356, 357, 358, 359, and 451.

German: A minimum of 15 additional credits elected from 352, 353, 354, 355, 358, and 451.

Russian: A minimum of 15 additional credits elected from 353, 354, 355, 361 and 451.

Spanish: A minimum of 15 additional credits elected from 352, 353, 354, 355, 359, 360, 361, and 451.

Music

37 credits

Required: Music 135, 136, 151, 152, 235, 236, 251, 252. The remaining 13 credits are distributed among applied music (voice or instrument), participation in musical organization, and electives chosen in consultation with a department advisor.

Philosophy

27 credits

Required: Philosophy 111, 211, 212, 255, 256, 450. The remaining 9 credits are electives, which should be chosen in consultation with a departmental advisor. Philosophy 352 and 353 are recommended as electives.

Speech

36 credits

Required of all students regardless of concentration within the department, four of the following: Speech 113, 251, 253, 256, 354. Concentrations: **Public Address.** Speech 114, 264. Three of the following: Speech 311, 411, 412, 451. Speech electives: 11 credits. **General Speech.** 6 credits in each of the following areas: public address, oral interpretation, and theater (speech science may be substituted for one of the areas). Speech electives: 6 credits.

Theatre 39 credits
Required: Speech 253, 254, 352, 359, 362, English 353 (Shakespeare), Philosophy 354 (Aesthetics). Electives: 18 credits to be taken by students in consultation with a departmental advisor.

Area Major 39 credits
Instead of majoring in a specific subject field within the Humanities, a student may choose to complete area requirements by taking a minimum of 39 additional credits distributed in the following fields: English, Foreign Languages, Music, Philosophy, Speech and Theater Arts.

C. Electives

The number of credits in free electives available to a student majoring in the Humanities will vary from program to program. The student should choose elective courses in the arts and sciences with the assistance of a faculty advisor.

MAJORS IN THE NATURAL SCIENCES AND MATHEMATICS

The program for a Bachelor of Arts degree with a major in one of the areas of the Natural Sciences and Mathematics combines a broad requirement in general education with advanced study in biology, chemistry, earth science, mathematics, and physics.

The natural sciences are concerned with describing, explaining, and predicting events in the natural world. Work taken in the area is, for the most part, quite specialized, each field having developed a broad body of cumulative knowledge and procedures that are rigorous and analytical. Extensive work taken in the sciences, however, brings the student into contact with both mathematics and some of the other fields in this area. Consequently, students who elect to concentrate in the Natural Sciences and Mathematics should strive both for deep comprehension in a particular field and for an understanding of the problems, procedures, and results of related fields.

THE PROGRAM

A. Area Requirements

STUDENTS MUST COMPLETE A MINIMUM OF 54 CREDITS IN THE NATURAL SCIENCES AND MATHEMATICS.

The language requirement for students majoring in this area should be met in **French or German**.

All students who major in the Natural Sciences and Mathematics must arrange their programs so that they will earn at least 28 credits in general education in the area, making certain that each of the

following fields is represented: biology, chemistry, earth science, mathematics, and physics.

B. Majors

Within the Natural Sciences and Mathematics a student may major in one of the following subject fields. Variations from the listed patterns should be made only in consultation with departmental advisors.

Courses taken to meet general requirements ("A," above) may be applied to the major where appropriate.

Note: Because of the important sequential nature of the programs in this area, the student should consult with a departmental advisor at his earliest opportunity to be assured of developing the proper pattern.

Biological Sciences

Students electing the Biological Sciences for major emphasis can plan a program in one of several specialized areas:

1. Physiological Biology; 2. Structural and Developmental Biology; 3. Environmental Biology; 4. Integrated Biology; or they can pursue the traditional approaches: General Biology, Zoology, or Botany.

Required courses for all students: Biology 153, 154, 201, 202, and 203. Electives: 9 additional credits in one of the specialized areas. Required supplementary courses: Mathematics 171; Chemistry 153, 154, 251, 353; Physics 251, 252, and Geography 111.

Chemistry

40 credits

Required courses: Chemistry 151, 152, 251, 252, 352, 354, 355, and 357. Required mathematics courses: 171, 172, 271, 272. Required physics courses: 251, 252. Although not required, it is strongly recommended that chemistry majors elect either an advanced organic or inorganic chemistry course, Mathematics 352 and 452, and either Physics 353 or 354.

Physical Geography

30 credits

Required: Geography 111, 252, 253, 258, 351, 352, 451. The remaining 9 credits to be elected from Geography 251, 254, 257, 353, 355, 357, 452, 453. Required mathematics courses: Mathematics 171, 271.

Mathematics

40 credits

Required: Mathematics 171, 172, 271, 272, 371, 372, 471, 472 and 12 hours of electives numbered 300 or higher.

Physics

38 credits

Required courses: Physics 258, 259, 351, 352, 353, and 354. Recommended physics electives: 453, 358, or 460. Required mathematics courses: 171, 172, 271, 272. Required chemistry courses: 153 and 154. Although not required, it is strongly re-

commended that physics majors elect the following courses: Mathematics 352 and 452, and Chemistry 354.

Area Major

26 credits

Instead of majoring in a specific subject field within the Natural Sciences and Mathematics, a student may choose to complete area requirements by taking a minimum of 26 additional credits in one or more of the following fields: biology, chemistry, mathematics, physics, and physical geography. The student must elect a sufficient number of the more advanced courses to promote a scholarly interest in the field.

C. Electives

The number of credits in free electives available to a student majoring in the Natural Sciences and Mathematics will vary from program to program. Students should choose elective courses in the arts and sciences with the assistance of a faculty advisor.

MAJORS IN THE SOCIAL SCIENCES

The program for a Bachelor of Arts degree with a major in one of the areas of the Social Sciences combines a broad requirement in general education with advanced study in economics, geography, history, political science, psychology, or sociology-anthropology.

The Social Sciences area of concentration is concerned with man and his social environment, with human institutions, and with the modes of procedure by which men live, work, and play together. While the various fields that comprise this area have developed methodologies that are appropriate to the groups of institutions and problems they have selected to explore, they are all so intimately related that competence in a field presupposes a deep familiarity with the area in general.

The particular fields and courses selected will depend largely on the student's interests and needs. Generally, however, each student electing to concentrate in this area should strive: (1) to develop a deep understanding of the problems, principles, and practices of one of the fields in the area; (2) to become competent in the skills that are necessary for various types of work in that field; and (3) to comprehend the interrelationships existing between that field and several others affecting it.

THE PROGRAM

A. Area Requirements

STUDENTS MUST EARN A MINIMUM OF 54 CREDITS IN THE SOCIAL SCIENCES

All students electing the social science area of concentration are required to take the following courses:

Economics 211—Principles of Economics I—3 cr.

Economics 212—Principles of Economics II—3 cr.
 History 111—Ancient and Medieval Civilization—3 cr.
 History 112—Modern Civilization—3 cr.
 History 213—The United States—3 cr.
 Political Science 210—Principles of Political Science—3 cr.
 Political Science 211—American Government—3 cr.
 Sociology 211—Principles of Sociology—3 cr.
 One elective in Sociology
 or
 Psychology 211—General Psychology—3 cr.
 One elective in Psychology—3 cr.
 or
 Sociology 211—Principles of Sociology—3 cr.
 Psychology 211—General Psychology—3 cr.
 or
 Anthropology 211—Anthropology—3 cr.
 One course in either Sociology or Psychology—3 cr.

B. Majors

Within the Social Sciences a student may emphasize any of the following fields. At his earliest opportunity, the student should consult with an advisor to plan a departmental program which will best fit his interest and needs.

Courses taken to meet General Area Requirements ("A", above) may be applied to the major where appropriate.

Economics 30 credits
 Required: Economics 211, 212 as prerequisites to all other economics courses. The remaining 24 credits are elective.

Geography 30 credits
 Required: Geography 111, 251, 257, 259, 354, 356, 454. The remaining 9 credits to be elected from Geography 254, 355, 357, 452, and 453. Although not required, the following courses are strongly recommended: Geography 252, 258, 352, 353; Mathematics 171.

History 30 credits
 Required: History 111, 112, 213. The remaining 18 credits are history electives. Of these, 12 credits must be taken in courses on the 300 and 400 levels.

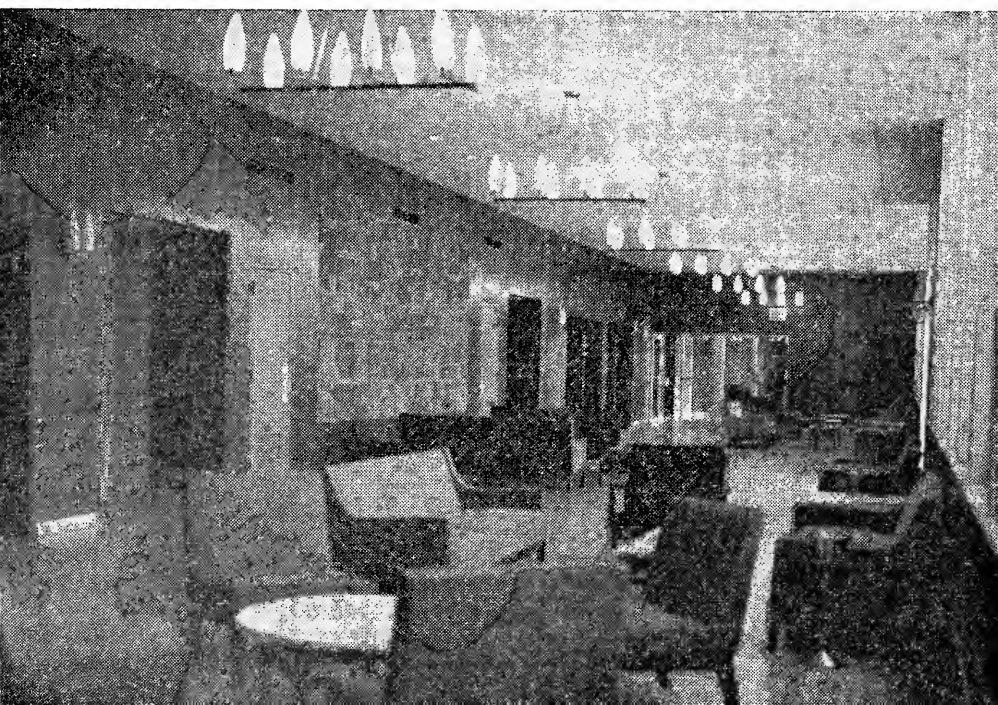
Political Science 24 credits
 Required: Political Science 210, 211. The remaining 18 credits are political science electives.

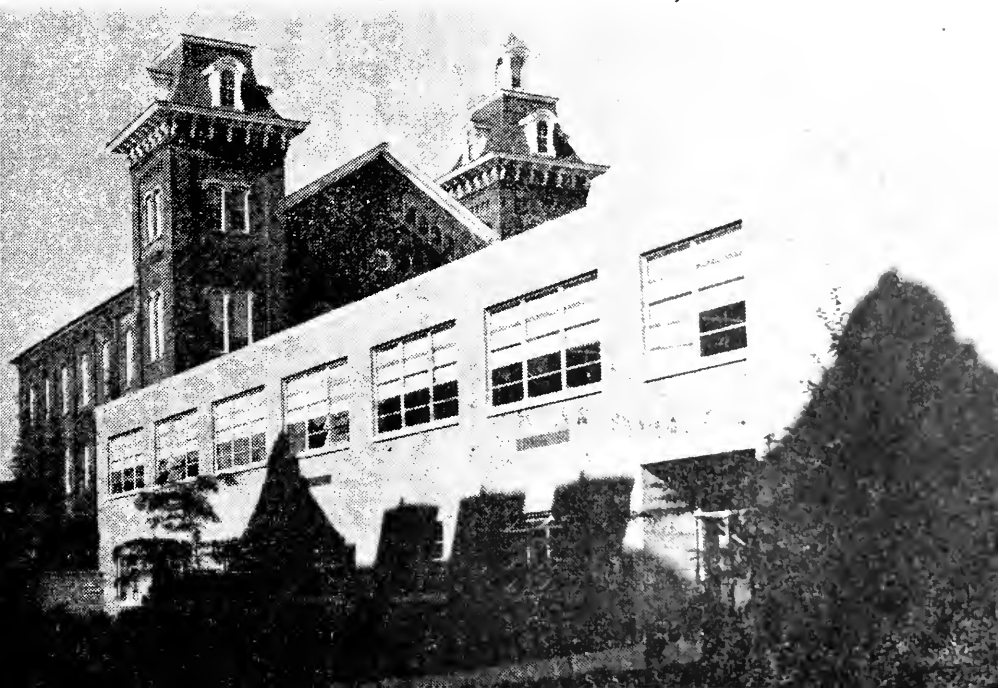
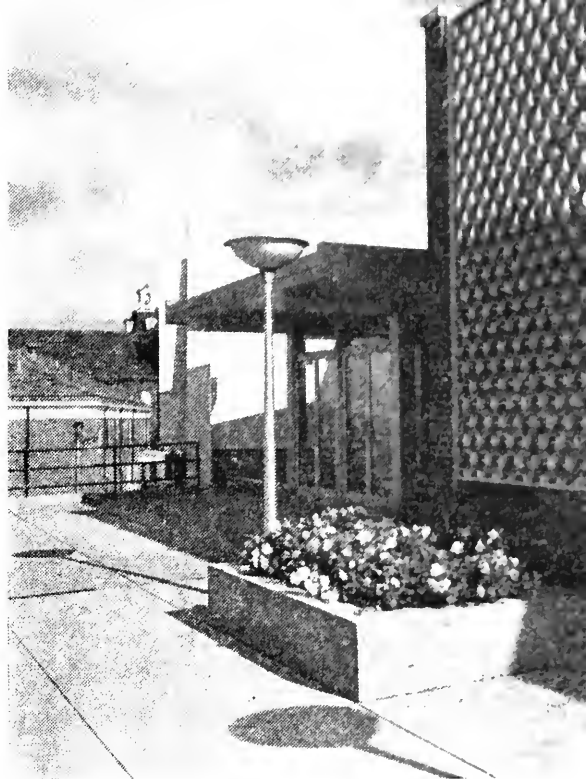
Psychology 30 credits
 Required: Psychology 211, 251, and 451. The remaining 21 credits are psychology electives to be chosen with the assistance of a faculty member in psychology. Strongly recommended supple-



CAMPUS VIEWS AND CAMPUS LIFE



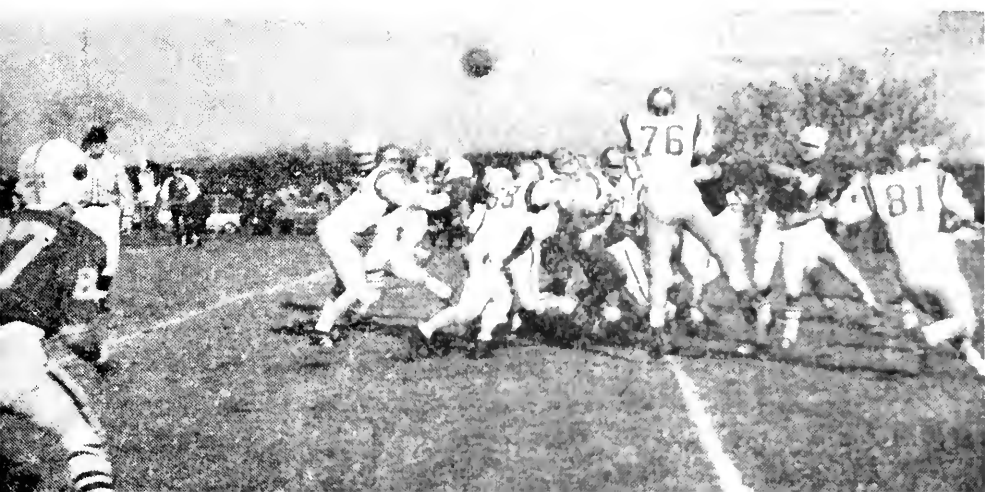


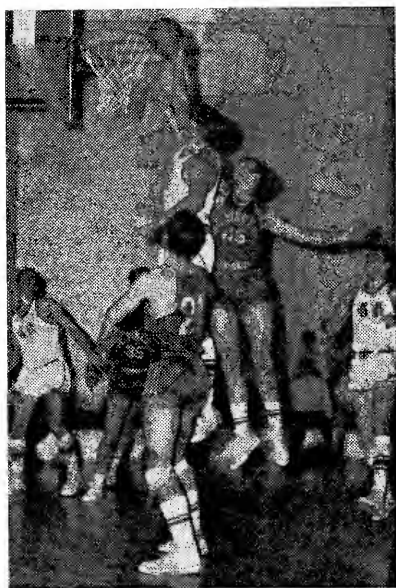












mentary courses: Biology 153-154, Mathematics 151-152 or 171, Sociology 211, 351 and other sociology courses.

Note: Psychology 222 (Educational Psychology) may not be counted toward a major in Psychology.

Sociology-Anthropology

24 credits

Required: Sociology 211. The remaining 21 credits are sociology and/or anthropology electives. If a student wishes to concentrate in anthropology, he must take Anthropology 211.

Area Major

24 credits

Instead of majoring in a specific subject field within the Social Sciences, a student may choose to complete area requirements by taking a minimum of 24 additional credits distributed in the following fields: anthropology, economics, history, political science, and sociology. The student must elect a sufficient number of courses on the 300 and 400 level to promote a scholarly interest in a field.

C. Electives—24 credits

The number of credits in free electives available to a student majoring in the Social Sciences will vary from program to program. Students should choose elective courses in the arts and sciences with the assistance of a faculty advisor.

FREE ELECTIVES IN LIBRARY SCIENCE FOR LIBERAL ARTS STUDENTS

Regardless of their majors, all liberal arts students have a number of **free electives** which must be taken to complete the 128 credits required for graduation.

Students who wish to do so may elect 12 to 18 credits in library science courses as part of their free elective program. By taking the following courses, liberal arts graduates may be able to qualify as **provisional librarians** under the Pennsylvania Public Library Code, and they will have the prerequisite courses required to pursue a graduate degree in library science:

L.S. 257	Basic Reference Sources and Services	3 credits
L.S. 258	Selection of Library Materials	3 credits
L.S. 260	Development and Administration of Libraries	3 credits
L.S. 357	Cataloging and Classification	3 credits

An additional 6 credits may be elected in consultation with the Library Science Department.

COURSE DESCRIPTIONS

ANTHROPOLOGY

Anth. 211: Anthropology 3 s.h.

This course deals with the origin, diversification, and evolution of man's way of life (cultures) from extinct primitive systems to modern industrial civilizations. This course is an introduction to Anthropology (the study of man) with emphasis on the nature and concept of culture. Some work is done in Physical Anthropology. Emphasis is placed on the simple and complex cultures of the world with specific readings in each category.

Anth. 213: Introduction to Bioanthropology 3 s.h.

A survey study of the human species in time, place, and culture and the investigation of the factors underlying human variation.

Anth. 214: Principles of Human Ecology 3 s.h.

A study of the functional inter-relationships of man and his biophysical environment.

Anth. 354: Cultural History of Africa and Asia 3 s.h.

This course begins with the rise and development of Islam and includes the expansion of Arab cultures into the Middle East and North Africa, the Muslim contribution to western civilization, Arab age of discovery in the Indian Ocean, the Ottoman Empire in Asia, and Arab nationalism. The second section deals with pre-history Africa as revealed by modern archaeology, a synopsis of African tribal cultures, the role of white explorers, and the imprint of colonialism on the modern African scene.

Anth. 355: Aboriginal North America 3 s.h.

This course begins with the study of the earliest archaeological evidence for the presence of Homo sapiens in the New World, the gradual development of Native Amerind cultures during the Palaeo-Amerind period, and the subsequent Archaic level as it shows the native population in balance with the environmental resources. While the initial emphasis will be upon the rise and development of indigenous cultural patterns, considerable time will be devoted to a close scrutiny of man's utilization of his environment.

Anth. 356: Field Archaeology 4 s.h.

This course will give undergraduate students an opportunity to participate actively in all phases of archaeology field investigation of a limited section of the Allegheny river drainage in order to determine cultural sequence, settlement patterns, population density, economy, cultural influences, technologies, and human ecology. Procedures will include reconnaissance, testing of suspected sites, site survey, controlled excavation, site mapping, interpretation and recovery of specimens, and a final site report.

Anth. 357: Aboriginal South and Central America 3 s.h.

A survey of Indian cultures from the beginnings in the Late Pleistocene to the coming of the Conquistadores; special emphasis is placed upon culture developments, the rise of states, native agriculture, and the development of arts and crafts, including architecture and ceremonial art. Prerequisite: An introductory course in either Anthropology or Sociology.

Anth. 358: World Prehistory

3 s.h.

This course covers the cultural development of Man from the Lower Palaeolithic to the beginnings of urbanism in the Bronze and Iron Age. The course examines man's development in Europe, Africa, Asia, and the New World; draws comparisons between cultures; studies the diffusion of cultural traits; and summarizes recent developments in research. Prerequisite: None.

Anth. 359: Primitive Science and Technology

3 s.h.

This course is designed to provide a better understanding in Man's relationship with and utilization of environment. It traces the development which ultimately leads to the rise of technological societies. In investigating Man's attempts to come to an understanding of the forces around him, the course provides a survey of the history of scientific thought. Prerequisites: Soc. 211; Anth. 211.

Anth. 360: Introduction to Folklore

3 s.h.

The course covers the main aspects of oral traditions such as folktale, legend, myth, riddle, folksong, etc., and analyzes the relationship of oral traditions to literature. The systematic study of folklore, its methods, research approaches, and related subjects are investigated. No Prerequisite.

Anth. 400: Individual Research

2 s.h.

Individual research, designed as an advanced course in anthropology, provides for the student's individual approach to a specific problem, defined in conference with the instructor. Regular sessions with the faculty member in charge evaluate the progress of the work and chart its direction. Students are expected to acquire research techniques in dealing with their topics. All branches of anthropology may be used to select a topic. Credit and grades will be given only if the project (term paper, survey, investigation, etc.) has been completed to the satisfaction of the project adviser and the departmental chairman. Prerequisite: Anth. 211.

Summer Archaeological Field School

7 s.h.

This six week session combines Anth. 355 and Anth. 356 into an integrated program especially designed to combine the theoretical aspects of the study of Amerind cultures with the practical field approach in archaeology. The program participates in the Upper Allegheny Archaeological Survey through excavation of selected archaeological sites. Each participant will have an opportunity to work on at least two different sites during the program.

ART**Art 011: Art Fundamentals**

1 s.h.

A course in the fundamentals of art expression. Principles of design and their application to art products are discussed and made meaningful through studio work. Techniques and various approaches to basic skills in drawing, color, texture, form, and space are given attention.

Art 111: The Visual Arts

3 s.h.

The great trends in the visual arts, both past and contemporary, and their relationship to society are studied. An examination of the nature of creative artistic expression is made. Emphasis is also given to the utilitarian aspects of art. These include architectural design, community art forms, products of an industrial society, and commercial uses of art. Studio ex-

periences are provided to assist the student in forming a deeper understanding and sensitivity to all art forms.

Art 112: History of Art I 3 s.h.

Visual expressions of different cultures from the beginning of the Paleolithic Period to the High Renaissance are studied. Architecture, painting, sculpture, and the significant minor art forms are emphasized. The relationship of art to the many facets of man's environment are discussed.

Art 113: History of Art II 3 s.h.

Western and Oriental art forms from the Renaissance to the present are given careful attention. Architecture, painting, sculpture, graphics and significant minor art forms are studied. Particular emphasis is given to contemporary expression, the new movements, the ideas and technology which affect the artist as he functions in today's society.

Art 222: Teaching Art in the Elementary Grades 2 s.h.

The place of art in the elementary public school curriculum is studied and discussed. Lectures center around the creative growth and development of the child at different age levels and the fusion of art with the life experiences of the child. Techniques of lesson planning, presentation, and classroom procedure at the elementary level are developed and utilized in actual teaching situations. Discussions, observations in schools, individual research problems, written reports, and visual materials provide broad practical experiences. Prerequisite: Art 231 or equivalent preparation.

Art 231: Studio Experiences in Art Processes 2 s.h.

This is a basic course designed to develop sensitivity and insight into art media and processes. Students develop skills, imagination, and techniques to increase understandings in the visual forms. Various projects make use of crayons, chalk, tempera, watercolor, clay, sculptural media, printing techniques, and scrap materials. Work is both two and three-dimensional. Prerequisite: Art 011 or equivalent preparation.

Art 232: Experimental Art Techniques 3 s.h.

The primary aim of this elective course is to develop expression in drawing, oils, watercolor, casein, and the graphic arts. Investigations in some specific areas which meet student needs and interests are encouraged. Open to all curricula.

Art 233: Arts and Crafts 3 s.h.

This is a course with a dual purpose. First, it is an enrichment course meant to give vital experience with the arts and crafts to any college student. Second, it is to provide sufficient knowledge and skill for teaching of the arts and crafts in the elementary field. A great deal of freedom is given students in initiating their own projects and carrying them out. Stenciling, weaving, decorative painting, and modeling are only a few of the many offered.

Art 234: Elementary Art Workshop 3 s.h.

A workshop designed to meet the needs of teachers in service. Emphasis is placed on newer approaches and presentations, art and other school subjects, materials, processes, and equipment used in today's elementary art program. Offered in summers only.

Art 235: Practical Problems in Art Education 3 s.h.

Practical problems in art education may be and usually are varied in nature. Some students require more information regarding methods of teaching and others feel that more art techniques are desirable. Whatever the students regard as problems are considered the objectives of the course and are studied to the point where students' needs are considered satisfied.

Art 236: Creative Design 3 s.h.

A study of the basic principles of line, color, and texture in both two and three dimensions. Creative approaches are stressed rather than formal principles. Major attention is placed on the exploration of materials and processes and their application to elementary activity. Recommended for students pursuing Field of Concentration in Art.

Art 237: Drawing and Composition 3 s.h.

Problems in basic drawing and composition techniques in various media. Inventive interpretations from varied visual materials and imaginative approaches. Use of blackboard and other supports is emphasized. Recommended for students pursuing Field of Concentration in Art.

Art 300: Ceramics 3 s.h.

Design and construction of clay pieces in varied techniques and approaches. Basic clay and glaze technology, hand building, throwing, turning, and firing processes.

Art 301: Advanced Ceramics

Students working in Advanced Ceramics work with the technical aspects of ceramics—glaze formulation, glaze calculation, experiment with natural local clays and desired clay bodies, decorating methods, glazing, firing techniques, and pursuing individual interests. The student works on an independent level investigating desired interests leading to a final individual critique of work accomplished. Prerequisite: Art 300: Ceramics.

Art 311: Graphic Media and Techniques 3 s.h.

Broad experiences in a wide range of media and processes of graphic expression. Both old and new approaches in lino-cuts, wood block, etching, dry point, lithography, serigraphy, and exploration with new techniques.

Art 312: Handcrafts 3 s.h.

This course is structured to assist student development in basic craft media and processes. Attention is given to construction in varied materials, weaving, leather craft, textile work, model construction, and other related areas. The richer aspects of the plastic elements and design are emphasized.

Art 313: Crafts in the Elementary Schools 3 s.h.

Broad experiences with a variety of media common to today's elementary program. Commercially made and discarded materials for craft production are utilized and evaluated as to their potential and value. Source material is developed to assist in planning craft activity. A useful course for those engaged in summer playground work.

Art 315: Landscape Painting 3 s.h.

A basic course serving as an introduction to the problems of landscape painting. Use of oil, casein, watercolor, and mixed media in work taken directly from nature, imagination, and memory.

Art 316: Sculpture**3 s.h.**

This course emphasizes the aesthetic, structural, and technical principles of three-dimensional form while stressing cast sculpture as a means of artistic expression. The student will experience direct control of clay, wax, plastic, wood and mixed media while carrying out the various stages of casting in bronze, lead, and aluminum.

BIOLOGY**Biol. 111: Basic Biological Science****4 s.h.**

This course deals with the principles of biology. Topics include cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance, and man's interrelationship with his biological environment. The classification of plants and animals is reviewed briefly.

Biol. 153: General Biology I**4 s.h.**

A survey of the plant and animal kingdoms emphasizing structural, physiological and evolutionary relationships. Patterns of reproduction, heredity, and ecology are also considered. Two lecture and four laboratory hours weekly.

Biol. 154: General Biology II**4 s.h.**

A continuation of Biol. 153. These two courses are designed to provide the prospective biology major with a firm foundation for subsequent courses in the science of biology. Two hours lecture and four hours laboratory weekly.

Biol. 201: Genetics**3 s.h.**

A study of the principles of inheritance in plants, animals and micro-organisms. Topics considered include: Mendelian genetics, modern genetics, the chemical basis of heredity, linkage, recombination, evolution, population genetics, and human genetics. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153 and 154 or consent of the instructor.

Biol. 202: Environmental Biology**3 s.h.**

Interaction of organisms and their biotic and abiotic environment: population dynamics and interactions; the reality of communities; energy transfer within an ecological system; components of the ecosystem. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153 and 154 or equivalent or consent of the instructor.

Biol. 203: Cell Biology**3 s.h.**

Structure and function of plant and animal cells. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153, 154 and Chem. 153, 154 and 251 or their equivalents or consent of the instructor.

Biol. 351: Field Botany**3 s.h.**

Collection and preparation of plants using herbarium methods. Emphasis on identification of flowering plants in a variety of habitats. Alternate summers. Prerequisites: Biol. 153 and 154.

Biol. 352: Taxonomy of Vascular Plants 3 s.h.

Systems of classification; collection and identification of flowering plants and ferns of the region; use of keys and herbarium collections. Summers only. Prerequisites: Biol. 153 and 154.

Biol. 353: Ornithology 3 s.h.

An introduction to the biology of birds. Lectures deal with internal and external adaptation for aerial travel, classification, migration, habitats, plumage changes, nesting habits, and ecologic relations. Two lectures and three laboratory or field trip hours weekly.

Biol. 354: Entomology 3 s.h.

A general study of insects including structure, physiology, classification, economic importance and relationships. A project is required including a collection of and a report on some group of insects. Two lectures and one three-hour laboratory or field trip period weekly. Prerequisites: Biol. 153, 154.

Biol. 355: Microbiology 3 s.h.

A study of microorganisms including viruses, fungi and bacteria. Culturing, isolation, classification and ecology of microscopic life from air, water, soil and dairy products including beneficial and pathogenic forms. Two lectures and six laboratory hours weekly. Prerequisites: Biol. 153, 154 and Chem. 154.

Biol. 356: Field Zoology I 3 s.h.

This course deals with the study of invertebrates in the field and includes the collecting and preserving of such forms with emphasis on taxonomy. The course meets five hours a day with two extensive field trips required. Students are encouraged to make collections for future classroom use. Given alternate summers.

Biol. 357: Field Zoology II 3 s.h.

This course deals with vertebrate forms (with the exception of birds), emphasis being placed upon ecological importance and taxonomy of the following groups: fishes, amphibians, reptiles, and mammals. The class meets five hours a day. Given alternate summers.

Biol. 358: Conservation of Plant and Animal Resources 3 s.h.

A study of accepted practices in soil, water, forest, and game conservation with a biological approach. Extensive use of state and federal consultants and films. Field trips include two weekends and several all-day trips.

Biol. 360: Problems in Biology 3 s.h.

Acquaints the student with skills and techniques used in research. Each student selects a problem for investigation and completes all phases including writing a research report. Admission by approval of the instructor.

Biol. 401: Radiation Biology 3 s.h.

A course presenting the fundamental aspects of the science of radiology with emphasis on biological applications. The topics studied are physical and genetic effects of radiation on plants and animals; radioactive fall-out and its biological consequences; applications of radioisotopes in biological research; and use of radiation sources and detectors. Prerequisite: Biol. 154.

Biol. 451: Animal Physiology 3 s.h.

Study of the comparative physiology of animals. Includes water and ion regulation, circulation, respiration, nutrition, nervous activity, endocrine functions, and responses to temperature, light, gases and pressure. Two lectures and three hours laboratory weekly. Prerequisite: Biol. 203.

Biol. 452: Plant Physiology 3 s.h.

Life processes and responses of plants to the environment. Synthesis, digestion, and assimilation of foods, mineral nutrition, absorption, translocation. Two lectures and three hours laboratory weekly. Prerequisite: Biol. 203.

Biol. 460: Comparative Vertebrate Morphology 3 s.h.

The course traces the most important trends in the evolution of basic structures in vertebrate lines, and conveys an appreciation of how the mammals came to possess the combination of characters that make this group unique. Emphasis is upon evolution and continuity of structure. Laboratory work includes comparative dissection of the dog fish shark, *Necturus*, and the cat. One lecture and two double periods of laboratory weekly. Prerequisites: Biol. 153, 154.

Biol. 461: Vertebrate Embryology 3 s.h.

A study of the development of the vertebrates, including the formation of germ cells, fertilization, growth and differentiation, and the formation of tissues and organs. One lecture and two double period laboratories. Prerequisite: Biol. 154.

Biol. 462: Histology 3 s.h.

A study of the microscopic structure of tissues comprising the organ system of animals, including man. One lecture and two double-period laboratories. Prerequisite: Biol. 154.

Biol. 470: Animal Ecology 3 s.h.

Interrelationships of animals and their environment, including physical and biological factors. Discussions and investigations will include animal distribution, procuring food, escape from enemies, surviving climate extremes, species diversity, reproduction and community organization. Field and laboratory. Prerequisite: Biol. 202.

Biol. 471: Plant Ecology 3 s.h.

A study of the structure, development, and causes of distribution of plant communities based upon individual studies of the major plants in each group. Emphasis upon plant associations in western Pennsylvania visited during the course. Given alternate summers. Prerequisite: Biol. 202.

Biol. 472: Parasitology 3 s.h.

A study of parasites in relation to man and his domesticated animals. Emphasis is placed on morphology and life histories in addition to the ecology of the parasite. Two lectures and three laboratory hours weekly. Prerequisites: Biol. 153, 154.

Courses to be offered only in 1967-68.

Biol. 263: Zoology 4 s.h.

A course designed to give a deeper understanding of the phylogenetic relationships of the invertebrates and vertebrates. The principles of organic evolution, animal classification, and levels of organization are stressed. Two hours lecture and four hours laboratory weekly. Spring 1968.

Biol. 264: Botany 4 s.h.

Principles of classification and phylogeny in the plant kingdom from bacteria to angiosperms. Introduction to the nature of plant communities. Two lecture and four laboratory hours weekly. Prerequisite: At least one semester of biology (General Biology, Basic Biology or equivalent). Fall 1967.

BUSINESS ADMINISTRATION

Bus. Ad. 151: Fundamentals of Accounting I. 3 credits

Methods of collecting, summarizing, and presenting financial information of a business organization.

Bus. Ad. 152: Fundamentals of Accounting II. 3 credits

Further development of accounting cycle. Elementary analysis of financial statements, inventory methods, depreciation procedures, and related subjects. Emphasis is on accounting as a tool for administrative planning and control. Prerequisite: Bus. Ad. 151.

Bus. Ad. 251: Intermediate Accounting I. 3 credits

Accounting for the valuation and amortization of current assets, long-term investments, plant and equipment, intangible assets and deferred charges; accounting for current, noncurrent, contingent, and deferred liabilities. Prerequisite: Bus. Ad. 151 or permission of instructor.

Bus. Ad. 252: Intermediate Accounting II. 3 credits

Accounting for the organization, financing, operation and dissolution of partnerships and corporations; principles of consignment and installment sales. Prerequisite: Bus. Ad. 251.

Bus. Ad. 351: Administrative Controls and Analysis. 3 credits

Basic consideration of cost principle, procedure, control, and analysis. Cost accounting as a "tool" of management is stressed. Prerequisites: Bus. Ad. 251-52.

Bus. Ad. 352: Tax Accounting. 3 credits

Theory and practice of federal income taxation. Prerequisites: Bus. Ad. 251-52.

Bus. Ad. 361: Organization Theory and Methods. 3 credits

The study of human behavior in organizations; how human beings function in organizations; how organizations pursue their goals; the conditions necessary to secure effective action within organizations; and making and implementing decisions. Emphasis is placed on the methods and problems of effectively organizing persons for the achievement of objectives. Prerequisite: Junior Standing.

Bus. Ad. 362: The Legal Environment.**3 credits**

The background, importance, and role of law in society; the legal system of the United States and its workings; private property and contract in a free enterprise system; and the evolution of legal attitude toward businesses, including the changing relations between business and government. Prerequisite: Senior Standing.

Bus. Ad. 363: Principles of Management.**3 credits**

The course covers the history of management; the planning, organizing, and controlling processes; production, financing, and marketing factors; and orientation to industrial and labor relations and personnel and supervisory management. The emphasis is placed on the management functions and processes required for effective organization in business activity. Prerequisite: Junior Standing.

Bus. Ad. 364: Principles of Marketing.**3 credits**

The topics included in this course are the role of the consumer and consumer motivation; selling and buying functions; physical distribution management; and government regulation and control in marketing. The purpose of the course is to develop an understanding of the increasing complexity of the modern marketing system, why it is essential, and how it performs. Prerequisite: Junior Standing.

Bus. Ad. 365: Financial Institutions.**3 credits**

Financial problems, techniques of financial analysis, sources of financing, the process of financing, basic financial decisions, and the financial structure are some of the topics covered. The emphasis is on the decision-making process. Prerequisite: Junior Standing.

Bus. Ad. 451: Government Accounting.**3 credits**

The principles of accounting for governmental units and other non-profit organizations. Prerequisites: Bus. Ad. 151-52.

Bus. Ad. 452: Accounting Seminar.**3 credits**

This seminar deals with various topics and problems in the field of accounting to which adequate attention is not given in the formally organized course offerings. Students will be required to do independent work and make oral and written reports. Prerequisites: Accounting Major and Senior Standing.

Bus. Ad. 464: Personnel Management.**3 credits**

A detailed study of personnel problems and their relation to various personnel management principles. Case method is used. Prerequisite: Bus. Ad. 363.

Bus. Ad. 465: Marketing Problems.**3 credits**

A consideration by the case method of the problems facing the producer and middleman. Prerequisite: Bus. Ad. 364.

Bus. Ad. 466: Financial Problems.**3 credits**

A consideration by the case method of the financial problems of business firms. Prerequisite: Bus. Ad. 365.

Bus. Ad. 467: General Business Seminar.**3 credits**

This seminar requires the student to pull together what he has learned in the separate business fields and to utilize this knowledge in the analysis of complex business problems. Students will be required to do independent work and make oral and written reports. Prerequisite: General Business Administration Major and Senior Standing.

CHEMISTRY**Chem. 151: Inorganic Chemistry I****5 s.h.**

This course includes a chemical study of the structure and behavior of matter. Topics stressed are experimental evidence for the structure of atoms, electronic orbitals as related to chemical bonding, the periodic law, stoichiometrical relationships in problems and reactions, oxidation and reduction, gas laws, ionization, acids and bases.

Chem. 152: Inorganic Chemistry II**5 s.h.**

This course continues the study of properties and uses of elements and their compounds as related to electronic structures; the study of colligative properties of solutions; and the qualitative analysis of the cations and anions. Prerequisite: Chem. 151.

Chem. 153: General Chemistry I**4 s.h.**

This course includes a chemical study of the structure and behavior of matter. Topics stressed are experimental evidence for the structure of atoms, electronic structure and bonding, chemical periodicity, gas laws, solutions and their colligative properties. The mole concept in problem solving is stressed throughout the course. The course is primarily for liberal arts students not majoring in chemistry and for biology majors. Chemistry majors should schedule Chem. 151.

Chem. 154: General Chemistry II**4 s.h.**

Chemistry 154 is the sequential course to Chemistry 153. Major units presented are ionization, acids, bases and salts, redox reactions, and electrochemistry. Chemical equilibrium pertaining to pH, buffer solutions, and solubility is stressed. The course is primarily for liberal arts students not majoring in chemistry and for biology majors. Chemistry majors should schedule Chem. 152. Prerequisite: Chem. 153.

Chem. 251: Organic Chemistry I**4 s.h.**

The study of the nomenclature, preparation and properties of aliphatic and aromatic hydrocarbons and the reactions of the functional groups including alcohols and halides. Stereochemistry, aromaticity, reaction rates, and mechanisms. Prerequisite: Chem. 151, 152, or 153, 154.

Chem. 252: Organic Chemistry II**4 s.h.**

A continuation of Chem. 251. A discussion of the reactions of the functional groups including aldehydes and ketones, carboxylic acids and derivatives, diazonium salts, nitro compounds and amines. Condensation reactions, carbohydrates and polymerization. Prerequisite: Chem. 251.

Chem. 253 Photography**3 s.h.**

Practice in the photographic techniques of picture taking, composition, and processing constitutes the major part of this course with some emphasis

on the physics of the camera and the chemistry of the film and photographic processing. Not counted toward chemistry or science majors.

Chem. 255: Industrial Chemistry **3 s.h.**

This course deals with the application of theories, laws, and calculations of chemistry to industrial processes. The class work is supplemented by reading of current literature and trips to chemical industries. Prerequisites: Chem. 151, 152 or 153, 154.

Chem. 258: Laboratory Techniques in Chemistry **2 s.h.**

This course includes elements of glass blowing, purification of compounds, preparation of standard solutions, laboratory planning, and the use of the library. Prerequisite: same as Chem. 255.

Chem. 352: Quantitative Analysis **3 s.h.**

This course gives introductory training in the theory and practice of gravimetric, volumetric, electrolytic, and potentiometric analysis. Quantitative calculations and relations are stressed. Prerequisite: Chem. 152 or Chem. 154.

Chem. 354: Physical Chemistry I **4 s.h.**

This course is an introduction to the fundamental principles of theoretical chemistry with application in the solution of problems and training in the techniques of physical-chemical measurements. Prerequisites: Chem. 152; Ph. 252 or Ph. 259; Math. 272.

Chem. 355: Physical Chemistry II **4 s.h.**

The rates of reactions and chemical thermodynamics form the chief topics of this course. Prerequisite: Chem. 354.

Chem. 451: Inorganic Synthesis **3 s.h.**

Preparation of a variety of substances ranging from elements to coordination complexes is a major area of study. Techniques of inorganic synthesis and purification are emphasized, and preparations and procedures which are illustrative of modern theory of inorganic chemistry are considered. Prerequisite: Chem. 456.

Chem. 453: Biochemistry **3 s.h.**

An introduction to modern cellular biochemistry. A study of the structure and chemistry of proteins and nucleic acids and the metabolic transformations of carbohydrates and lipids and protein synthesis. Prerequisite: Chem. 251.

Chem. 454: Water Analysis **2 s.h.**

This course is a study of the impurities commonly found in water sources. The analysis for these impurities and elimination of them to prepare water for domestic consumption, industrial use, and aquatic life constitute the laboratory work. Prerequisite: Chem. 152 or 154.

Chem. 456: Advanced Inorganic Chemistry I **4 s.h.**

Various concepts of bonding, encountered in previous courses, are extended and compared, to gain some appreciation of their uses and shortcomings. Considerable attention is given to steric relationships in many environments. The descriptive chemistry includes recently discovered compound types

as well as the classical period-group-subgroup patterns of behavior. Prerequisite: Chem. 355 (may be taken concurrently).

Chem. 457: Instrumental Analysis 3 s.h.

Topics discussed in this course are properties observable for analysis and optical methods of analysis such as visual colorimetry, photo-electric colorimetry, fluorescent methods, turbidimetry and nephelometry, ultra-violet, visible, and infra-red spectrophotometry. The laboratory work is the unifying element of the course and includes work with the types of instruments mentioned above.

Chem. 459: Demonstrations in Chemistry 3 s.h.

Studies are made of various demonstration techniques with students devising and applying each with many examples. Special attention is given to the study of the material of the CHEM. Study Committee of the American Chemical Society prepared for the purpose of vitalizing high school chemistry courses.

Chem. 460: Radiation Techniques 2-3 s.h.

Emphasis is placed on a program of independent study undertaken in the field of radiation chemistry under the direction of a member of the chemistry faculty. Representative topics included in the course are characteristics of isotopes, half-life, detection instruments, analytical applications and health physics problems. By arrangement.

ECONOMICS

Econ. 211: Principles of Economics I 3 s.h.

Introduction to economics, national income analysis, money and banking, monetary and fiscal policy.

Econ. 212: Principles of Economics II 3 s.h.

Pricing inputs and outputs, degrees of competition, distribution, and special economic groups. Prerequisite: Econ. 211.

Econ. 350: Microeconomic Theory 3 s.h.

Basic concepts of microeconomic theory. The behavior of consumers, producers, and markets. Prerequisites: Econ. 211 and 212.

Econ. 352: Aggregative Economics 3 s.h.

National income accounting and analysis; economic indicators and measures; fluctuations and growth; the role of money in a dynamic economy; forecasting for the economy and the firm; and problems of public policy. The objective of this course is to develop in the student an awareness of the impact of dynamic forces on economic activity in general and specifically on the decisions which must be made by individuals and firms. Prerequisites: Econ. 211 and 212.

Econ. 353: Elements of Statistics 3 s.h.

The collection, analysis, interpretation, and presentation of statistical data. Frequency distribution, reliability, time series, and cyclical movements are studied. Emphasis is placed on the correlation, forecasting, and index numbers of statistical nature. Prerequisite: Econ. 211.

Econ. 354: Money and Banking **3 s.h.**

The nature of money and deposit credit, central banking, the U. S. banking system, the Federal Reserve System, the Treasury Department, and the U. S. monetary and fiscal policies make up the main part of this course. Prerequisites: Econ. 211 and 212.

Econ. 355: Industrial Relations **3 s.h.**

A study of union history, structure, and functions in the United States economy. Collective bargaining, labor laws, and government policies toward labor are included. Management reaction to organized labor unions and related labor problems are stressed. Prerequisites: Econ. 211 and 212.

Econ. 356: Government Regulations **3 s.h.**

An examination of the major economic problems arising from public interest in competition, business practices, and labor. The anti-trust laws and regulations are included. Prerequisites: Econ. 211 and 212.

Econ. 357: Public Utilities **3 s.h.**

An analysis of public policies and methods regarding industries with a public interest with emphasis on transportation, power, and communication. The study of legal and financial aspects of public utilities are part of this course. Prerequisites: Econ. 211 and 212.

Econ. 358: International Economic Relations **3 s.h.**

Theory and practice of international trade. Balance of payments, foreign exchange, national commercial policies, international investment, and foreign aid are considered. Prerequisites: Econ. 211 and 212.

Econ. 359: Public Finance **3 s.h.**

A study of the American tax structure—federal, state, and local governments—and of the economic effects of various types of taxes and of government fiscal policy. Prerequisites: Econ. 211 and 212.

Econ. 360: Comparative Economic Systems **3 s.h.**

Analysis of alternative patterns of economic control, planning, and market structure. Experiences under capitalism, socialism, and mixed economics are compared and evaluated. Prerequisites: Econ. 211 and 212.

Econ. 450: Managerial Economics **3 s.h.**

The purpose of this course is to show how economic analysis can be used in formulating business policies. The topics studied are: elements of decision theory and criteria for decision-making by the firm; output and "scale" decisions; linear programming; concepts of profits, production and cost functions, equilibrium (industry and firm) competition; demand theory; pricing policies; capital budgeting and investment decisions; analysis of uncertainty; and inventory management. Prerequisites: Econ. 211 and 212.

Econ. 451: Business Cycles **3 s.h.**

Theories of business fluctuations; applications of modern income theory to business cycles; patterns of cyclical behavior and of long-term economic change. Implications for public policy. Prerequisite: Econ. 359.

Econ. 452: History of Economic Thought **3 s.h.**

This course traces the development of economic ideas from ancient times down to the present, with special emphasis on the period beginning with

Adam Smith. Attention is given to the economic and political environment in which the ideas emerged and to important biographical details of some of the leading economists who advanced or held the ideas. Prerequisite: Econ. 211 and 212 and Senior standing.

EDUCATION

Ed. 221: Developmental Reading 3 s.h.

A broadly based course which emphasizes improvement in rate, comprehension, reading taste, and independence in reading. Students are introduced to wide and varied sources of reading and numerous means of improvement in reading skills. Instruction in theory and an introduction to the possibilities of a supplementary mechanical program for reading improvement are included. Prerequisite: Ed. 333 or El. Ed. 323.

Ed. 223: Social Foundations of Education 3 s.h.

An introductory course to the social, historical, and philosophical foundations of education and to the relationship between schools and American society. Requirements and opportunities of professional careers in education are related to undergraduate and graduate programs of teacher preparation.

Ed. 224: Educational Tests and Measurement 3 s.h.

Professional techniques or educational testing procedures applied to the administration, construction, interpretation, and statistical computation of educational measurements. A first course.

Ed. 310: Psychology of Reading Instruction 2 s.h.

The course is to familiarize the student with the basic factors essential to effective and efficient reading. It is an overview of the functional and psychological learning skills related to reading. Required of secondary education majors who have not scheduled Ed. 333, 221, 425, 426, or El. Ed. 323.

Ed. 321: Methods of Teaching and Evaluating English 3 s.h.

This course gives consideration to the following: the place of English in the curriculum of the free public school in America; specific procedures for teaching and evaluating oral and written composition, English usage, and literature; the school-wide English program; and the administration of the school paper and the yearbook.

Ed. 322: Methods of Teaching and Evaluating French 3 s.h.

This course includes training in phonetics as well as in teaching procedures currently considered most effective at the secondary and also the elementary levels. Prerequisite: French 251.

Ed. 323: Methods of Teaching and Evaluating Geography 3 s.h.

A survey of available materials and current curricula in the field of geography form the basis for an analysis of modern techniques in the teaching of geography. Emphasis is placed on the nature, scope, and contributions of geography to general education. Time is devoted to the evaluation of recent textbooks, supplementary readers, government publication, magazines, maps, and pictures. The development of the best methods, techniques, and

skills in the use of all teaching aids and in the guiding of pupils in their study is the leading objective of the course.

Ed. 324: Methods of Teaching and Evaluating Mathematics 3 s.h.

Place and function of mathematics in secondary education; content and the improvement and evaluation of instruction in mathematics; acquaintance with current literature and research; observation in secondary schools. Prerequisite: 9 hours of college mathematics.

Ed. 325: Methods of Teaching and Evaluating Science 3 s.h.

This course is planned to give the prospective science major a thorough grounding in the problems of teaching science. The objectives of the science program in the secondary school, selection of textbooks, sources of suitable literature, how to secure materials for instruction, the preparation of units, and special techniques are studied. Prerequisites: 12 hours of work in major field.

Ed. 326: Methods of Teaching and Evaluating Social Studies 3 s.h.

This course is intended to familiarize prospective teachers with desirable methods which may be used in teaching the social studies. Emphasis is placed on the philosophy, objectives, course of study, and organization of subject matter for teaching purposes, curriculum materials, procedures and development.

Ed. 327: Methods of Teaching and Evaluating Spanish 3 s.h.

Materials, methods, and problems are covered in the teaching of Spanish on the secondary level. Observations and readings in methodology are extra-class activities.

Ed. 328: Methods of Teaching and Evaluating Speech 3 s.h.

A methods course designed to prepare seniors for student teaching. Consideration is given to such areas as: the place of speech in education, classroom procedures, diagnosis of speech needs, criticism of classroom speaking, evaluation of results of instruction, and supervision of extra-curricular activities. Prerequisites: 13 credits in Speech including Sp. 113.

Ed. 329: Audio-Visual Communication 2 s.h.

Audio-Visual Communication is the study of educational theory and practice concerned with the design and use of messages which control the learning process.

Ed. 333: Teaching of Reading—Secondary 3 s.h.

An overview of the physiological and psychological aspects of reading and methods applicable for group and individual instruction at the junior and senior high school levels. English majors who wish to qualify for certification in reading should schedule this course as a prerequisite to all other courses in reading.

Ed. 422: Professional Practicum Including School Law 2 s.h.

Special attention to the practical application of techniques of teaching and classroom management, comparison of techniques in specialized areas, typical problems encountered in student teaching, general principles of school law, and Pennsylvania school laws pertaining to the work of the classroom teacher. Limited to student teachers except by special arrangement.

Ed. 423, 424: Library Practice and Secondary Student Teaching (6, 6)—12 s.h.

Two major assignments are required: the equivalent of one-half time in public school library practice and the equivalent of one-half time in classroom academic teaching, both under the supervision of approved cooperating librarians and teachers in public school student teaching centers affiliated with the College.

Ed. 424: Secondary Student Teaching 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work in the area of the student's specialization. Assignments for secondary student teaching are completed at off-campus public school student teaching centers associated with the college.

Ed. 425: Diagnostic and Remedial Reading 3 s.h.

Provides theory and practicum for the remediation of reading problems in the classroom, including skills, the use of tools, and methods with which to discover and correct the physical, emotional, and mental factors involved in reading problems. Prerequisite: El. Ed. 323 or Ed. 333 or Teaching Experience.

Ed. 426: Reading Problems in the Secondary School 3 s.h.

The course prepares the teacher to plan corrective procedures which will eventuate the return of the student to his appropriate level of reading and comprehension in the diversified and comprehensive reading needs of the secondary school. Prerequisite: Ed. 333.

Ed. 431: Teaching the Exceptional Child 3 s.h.

A consideration of the problems connected with the education of the non-typical child—the mentally handicapped, the gifted, the blind, the deaf, the crippled, speech defective, and socially maladjusted. The selection, construction and adaptation of learning aids and materials.

ELEMENTARY EDUCATION

El Ed. 231: Creative Activities 3 s.h.

Exploration of the nature and value of creativeness together with classroom opportunities for its development. Consideration of the unit of work and the guidance of children in creative learning and expression. Student participation in individual and group projects by which they demonstrate how creativeness can be fostered in the elementary school.

El Ed. 321: Child Development 3 s.h.

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development. Emphasis on techniques of motivation, principles of learning, the role of individual differences, and environmental factors affecting attitudes, personalities, growth, and intellectual interests. Lectures, discussions, readings, and reports required.

El Ed. 323: Teaching of Reading 3 s.h.

An overview of the physiological and psychological aspects of reading and the materials and methods applicable for group and individual instruction in the elementary grades.

El Ed. 324: Teaching of Arithmetic 3 s.h.

This is a combination of a methods course and a professionalized subject matter course. Emphasis is placed upon the scope and sequential development of the arithmetic program, meaningful instruction in arithmetic, and available materials for implementing the arithmetic program. Problem solving, diagnostic work, and testing are stressed.

El Ed. 325: Modern Curriculum and Methods 5 s.h.

An integrated course coordinating theory and practice in the teaching of social studies, language arts, and health and physical education. Methods and materials applicable to unit type teaching, to the core curriculum, and to more traditional formations of the school are developed as emphasis is placed on the selection, organization, and evaluation of experiences and materials for elementary school children.

El Ed. 332: Nursery-Kindergarten Education 3 s.h.

Study of the function of pre-school and kindergarten programs in relation to the growth and development of children with a consideration of developmental and environmental influences on emotional problems. Study of the curriculum, physical environment, and such areas as music, literature, arts, science, creative expression, home-school relations, and dramatic play. Campus school experiences, directed reading, and films. Prerequisite: El Ed. 321.

El Ed. 422: Professional Practicum Including School Law 2 s.h.

Problems, practices, and regulations attending student teaching professional experiences. Coordination of the student teaching program with the educational objectives of the student teaching centers. Pennsylvania school laws relevant to the work of the beginning elementary school teacher. Practical interpretations of professional ethics and the functions of professional organizations.

El Ed. 424: Elementary Student Teaching 12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two student teaching assignments involving experience at two grade levels. Most assignments for elementary student teaching are completed at public school off-campus student teaching centers associated with the College.

El Ed. 423, 424: Library Practice and Elementary Student Teaching (6, 6)—12 s.h.

Observation and participation in teaching and in activities related to the performance of a teacher's work. The semester's program is divided into two student teaching assignments involving experience at one grade level and an elementary school library. Most assignments for elementary student teaching are completed at public school off-campus student teaching centers associated with the College.

El Ed. 426: Workshop in Elementary Education 3 s.h.

The work will provide professional growth for in-service teachers through the correlation and integration of subject content, the assessment of organizational procedures, and an examination of evaluative technique in meeting today's elementary school needs.

El Ed. 427: Reading Workshop**3 s.h.**

This course is designed to explore recent developments in procedures and media which may be applied to classroom instruction. Lectures, audio-visual aids, small-group study and individual efforts combine for a multi-disciplinary approach. The course is intended for those who have a background of teaching experience. Offered only in the summer for three weeks.

ENGLISH**Eng. 111: Composition I****3 s.h.**

This course emphasizes library orientation, research writing, composition style and usage, and the reading of literary types. In sections which require it, remedial work is done in punctuation, basic grammar, and spelling.

Eng. 112: Composition II**3 s.h.**

The course affords further practice in effective writing. Stress is placed on the organization of various types of expression through reading, discussion, and interpretation of selected literature. Continued functional practice in mechanics is taught when deemed necessary by the instructor. Reading includes study of two novels. Prerequisite: Eng. 111.

Eng. 213: Introduction to Literature**3 s.h.**

As an introduction to literature, this course is designed to provide opportunities for extensive reading which will familiarize students with the development of human thought as it has found expression in the recognized literary masterpieces of all times and peoples.

Eng. 251: English Literature**3 s.h.**

The course in English Literature is a survey of the literature of England beginning with *Beowulf* and moving through each literary and historical period. Representative selections from the recognized great in the literature of England are read. Emphasis is placed on the influence the history of the country has had upon its literature.

Eng. 252: American Literature**3 s.h.**

The work in American literature is a survey of the literature and the social history of America. Samples of significant work from American writers are studied.

Eng. 253: Philology and Grammar**3 s.h.**

The course is devoted, first, to an intensive study of formal English grammar and, second, to a consideration of the historical background of the English tongue and the major sources of English vocabulary.

Eng. 254: American Prose**3 s.h.**

The course in American prose considers both fiction and nonfiction work representative of American thinking and writing. Attention is given to social, political, and intellectual background related to selections studied.

Eng. 255: Pre-Shakespearian Literature**3 s.h.**

This course is a study of the development of literature in England prior to 1600. Particularly treated are *Beowulf*, the Arthurian epics, Chaucer, Spenser, and the medieval drama.

Eng. 256: Seventeenth Century Literature 3 s.h.

The course consists of study of John Milton and other important writers such as Bunyan, Walton, Donne, and various Cavalier and Puritan poets. The relation of the literature to the social, religious, and political history of the century is emphasized.

Eng. 257: The Novel to 1870 3 s.h.

The development of the novel in English as a major literary form is traced from its beginning in the mid-eighteenth century to Hardy and Twain through the reading and analysis of representative novels.

Eng. 258: Short Story 3 s.h.

The work of this course consists of lectures on the historical development of the short story followed by an intensive study of representative types. Class work is supplemented by extensive individual reading.

Eng. 259: Journalism 3 s.h.

A survey which provides theory and practice for all students who are interested in writing and other forms of journalism. Class contact with professional journalists and actual situations aids in bridging the gap between textbook theory and actual journalism practice.

Eng. 261: The Romantic Movement in American Literature 3 s.h.

This course is the study of a selected group of writers to illustrate their contributions to American art and thought and their relations with the development of Romanticism in the first half of the nineteenth century. Emphasis is given to Poe, Hawthorne, Melville, Emerson, Thoreau, and Whitman. Prerequisite: Eng. 252.

Eng. 262: The Realistic Movement in American Literature 3 s.h.

This course is a study of a selected group of writers to illustrate the development of realism and beginnings of naturalism in American Literature in the latter half of the nineteenth century and the first part of the twentieth century. The course concentrates on representative figures such as Clemens, Howells, Crane, James, and Morris. Prerequisite: Eng. 252.

Eng. 263: Contemporary American Literature 3 s.h.

This course is a study of a selected group of writers to illustrate the development of modern American Literature as a reflection of and comment upon our twentieth century experience. The course concentrates upon such representative figures as Dreiser, Lewis, Anderson, Fitzgerald, Hemingway, Dos Passos, Faulkner, Steinbeck, Frost, and Eliot.

Eng. 331: Children's Literature 3 s.h.

A study of the best in children's literature, both old and new, and the age when it is most appreciated. Students are acquainted with the history of children's literature, authors, illustrators, children's periodicals, and sources available for book selection. Wide reading of children's books, story telling, and oral reading are required. Recommended for elementary majors.

Eng. 351: Advanced Composition 3 s.h.

Advanced composition emphasizes writing experience in critical, expository, descriptive, argumentative, and creative work through intensive study of examples, frequent papers, and critical discussion of students' work.

Eng. 352: American Poetry

3 s.h.

The course is devoted to a study of the work of poets representative of American culture from the colonial period to the present.

Eng. 353: Shakespeare

3 s.h.

The work of this course is a study of selected comedies, tragedies, and historical plays by Shakespeare, together with the social, historical, and literary background necessary for their full appreciation.

Eng. 354: Eighteenth Century Literature

3 s.h.

Representative works of major Restoration and eighteenth century writers, such as Pepys, Dryden, Swift, Addison, Steele, Pope, Johnson, and Goldsmith, are considered in relation to the social, political, and intellectual climate of the age.

Eng. 355: Novel since 1870

3 s.h.

Through lectures and discussions the course examines trends in the development of the English and American novel since 1870. Six to eight representative novels are intensively studied.

Eng. 356: English Romantic Literature

3 s.h.

The major works of Wordsworth, Coleridge, Byron, Shelley, Keats, and their contemporaries are considered and related to the intellectual, political, and social currents of the time.

Eng. 451: Contemporary Poetry

3 s.h.

This course in contemporary poetry is devoted to consideration of representative verse published in both England and America since 1870.

Eng. 452: Modern Drama

3 s.h.

A comprehensive view of the best dramatic literature of the modern American and British theater since 1890 is presented through lectures, discussion, and experiences related to the contemporary stage.

Eng. 453: Chaucer

3 s.h.

The course is an intensive study of *The Canterbury Tales* and *Troilus and Criseyde* together with Chaucer's English and continental background.

Eng. 454: Victorian Literature

3 s.h.

The course in Victorian literature begins with a study of the many economic, social, religious, and political problems that disturbed nineteenth century England. The work of the major poets, essayists, and novelists is studied with particular care. Among the poets, Tennyson and Browning and the Pre-Raphaelites are given close attention. Novels representative of a half dozen of the most important fiction writers of the period are read and discussed.

Eng. 455: Criticism

3 s.h.

The course is a historical study of literary criticism and aesthetic theory with emphasis upon modern trends.

Eng. 456: English Honors Seminar

3 s.h.

Devoted to intensive study of selected writers and their works, the seminar is designed to offer excellent students opportunities for advanced and unusually challenging study in literature. Admission by departmental invitation.

Eng. 457: Introduction to Linguistics 3 s.h.

The course presents the essentials of descriptive, historical, comparative, and structural linguistics and demonstrates the interrelationship between linguistics and other fields such as phonetics, semantics, and foreign languages. The course offers students an opportunity to increase their functional knowledge through study of vocabulary, tools, and applications of linguistics.

Eng. 458: History of the English Language 3 s.h.

The history of the English language; a study of its origins and changes in structure, usage, pronunciation, spelling, vocabulary, and meaning.

Eng. 459: Old English Language and Literature 3 s.h.

An introduction to the essentials of Old English grammar; readings in simple Old English prose and poetry.

FRENCH**Fr. 151: French I (Elementary I)** 4 s.h.

Essentials of grammar, inductively presented. Emphasis on aural comprehension and oral expression, with extensive use of the language laboratory. Students may not receive credit for this course until French 152 has been successfully completed. Exceptions may be made for seniors and transfers upon the recommendation of the Department Head.

Fr. 152: French II (Elementary II) 4 s.h.

Continuation of French 151, with increasing emphasis on graded reading material. Prerequisite: French 151, or permission of the instructor.

Fr. 153: Elementary French Conversation 3 s.h.

Conversational practice, with extensive oral drill on grammatical patterns. Designed for those students who have met the prerequisites for French 251 but are lacking in aural-oral proficiency. May be taken concurrently with French 251.

Fr. 251: French III (Intermediate I) 3 s.h.

Brief systematic review of basic grammar; graded readings, conversation and composition on everyday topics. Prerequisites: French 152 or two years of high school study and/or a satisfactory placement test score.

Fr. 252: French IV (Intermediate II) 3 s.h.

Intensive reading of selected short stories and/or other works; outside reading, with oral and/or written reports. Prerequisites: French 251; or three years of high school study and/or a satisfactory placement test score.

Fr. 255: French Civilization I 3 s.h.

A survey of French geography, history, literature, and culture designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization. Prerequisites: French 252 or four years of high school study and/or a satisfactory placement test score.

Fr. 256: French Civilization II 3 s.h.

Continuation of French 255, which is prerequisite. These two courses are required of all majors.

Fr. 351: Advanced French Grammar and Composition 3 s.h.

Intensive oral and written drill with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-French translation, free composition, and conversation on everyday topics. Prerequisites: French 255 and 256 or one literature course.

Fr. 353: The Modern French Drama 3 s.h.

French drama from the 1890's to the present day. Playwrights principally treated are Maeterlinck, Claudel, Cocteau, Giraudoux, Anouilh, Sartre, Camus, Beckett, and Ionesco.

Fr. 354: The Modern French Novel 3 s.h.

A study of seven major French novelists of the 20th Century: Proust, Gide, Malraux, Mauriac, Sartre, Camus, and Bernanos.

Fr. 355: French Romanticism 3 s.h.

A study of French Romanticism from Chateaubriand to the Revolution of 1848. Major figures: Chateaubriand, Stendhal, Balzac, and Hugo.

Fr. 356: French Poetry from Baudelaire to Surrealism 3 s.h.

A survey of the major trends in French poetry from Baudelaire to the early 20th Century, particularly Baudelaire, Rimbaud, Verlaine, Mallarmé, and Valéry.

Fr. 357: The French Realistic Novel 3 s.h.

A study of French realism and naturalism from the Revolution of 1848 to 1900. Major figures: Balzac, Flaubert, Zola, and Daudet.

Fr. 358: The Literature of the Age of Enlightenment 3 s.h.

Reading of essays, drama, and fiction of the 18th Century. Major figures: Montesquieu, Voltaire, Diderot, and Rousseau.

Fr. 359: The Literature of the Classical Age 3 s.h.

Classical French philosophy, drama, and poetry: Corneille, Racine, Molière, Pascal, Descartes, La Fontaine.

Fr. 451: Supervised Readings in French Literature 3 s.h.

As the title suggests, the course is devoted to selected readings determined in relation to the needs and interests of the individual major.

GEOGRAPHY

Geog. 111: Basic Physical Geography 3 s.h.

The aim of this course is to develop a knowledge and appreciation of the elements of the physical environment and man's relationship with them. World patterns of land forms, climate, soils, vegetation, etc., are treated in conjunction with man's use of his material resources.

Geog. 251: Economic Geography 3 s.h.

The production, distribution, and use of the basic commodities of the world; the relationship between the physical factors and economic conditions and the pattern of major occupations; world trade and trade routes, types of carriers, and commodities carried; economic landscapes in underdeveloped lands and in the Western world. Prerequisite: Geog. 111.

Geog. 252: Physical Geology **3 s.h.**

A study of the earth (minerals and rocks) and the processes, both constructional and destructional, which have shaped it since it was formed. Constructional processes include volcanism, mountain building, and sedimentation. Destructional processes include the erosional activity of streams, glaciers, ground water, waves, and wind. In connection with these topics, an effort is made to acquaint the student with the methods and work of geologists and with some of the research at the frontiers of geology. The course includes a field trip into local areas. No prerequisites.

Geog. 253: Geomorphology **3 s.h.**

The physical phenomena as dynamic forces affecting man: landforms, their origin, and the forces that produced them; soils, minerals, water resources and their relationship to man. Prerequisite: Geog. 252 (Geology).

Geog. 254: Conservation of Natural Resources **3 s.h.**

The use and conservation of the nation's resources of water, land, forest, wildlife, minerals, power, and human resources.

Geog. 255: Trade and Transportation **3 s.h.**

The interdependence of industries, regions, and nations and the need for efficient transportation and communication; factors influencing the type of transportation used; changes in methods of transportation: the Great Lakes-St. Lawrence Seaway, jet air service, and great circle routes. Prerequisite: Geog. 111.

Geog. 256: Geography of Pennsylvania **3 s.h.**

A regional analysis of Pennsylvania, emphasizing man's cultural and economic response to environmental factors. Special attention is given to the resources of the state, analyzing their extent, their use, the need for well directed conservation, and the regional planning program of the Commonwealth. Field trips are an integral part of the course. Prerequisite: Geog. 111.

Geog. 257: Geography of the United States and Canada **3 s.h.**

A regional study of the United States and Canada, considering man's relationship to the physical factors of relief, climate, soil, vegetation, and mineral resources. The political structure and their relationships with each other and the rest of the world are analyzed from a geographic viewpoint. Emphasis is placed on Pennsylvania's position in the regional geography of the United States and Canada. Prerequisite: Geog. 111.

Geog. 258: Historical Geology **3 s.h.**

The course deals with the interpretation of the record of the rocks and the geologic history of the earth with emphasis on North America. The physical history of the continent and the development of life, especially backboneed forms, are discussed. Regional geologic history is illustrated by selected areas, notably Appalachia. Prerequisite: Geog. 252 or 111.

Geog. 259: Map Interpretation **3 s.h.**

A broad study of maps, charts, and atlases which is designed to develop an awareness of the great variety of maps available and to promote skill in their use. Emphasis is given to understanding map characteristics and properties needed for effective map usage, projections upon which maps are

commonly drawn, co-ordinates and grid systems, map scales, aerial representations of relief, and statistical data.

Geog. 260: Mineralogy 3 s.h.

The identification, uses, physical and chemical properties, occurrence, origin, and crystallography of the common minerals. Prerequisite: at least high school chemistry.

Geog. 261: Petrology 3 s.h.

The identification, occurrence and origin, classification, physical and chemical properties and uses of the common rocks. Includes a brief study of the important rock forming minerals. Prerequisite: Geog. 252 or Geog. 111.

Geog. 351: Meteorology 3 s.h.

A systematic study of the atmosphere, analyzing the laws and underlying principles of atmospheric change. Students have the opportunity to become familiar with the common weather instruments, to observe and record weather data, to read and interpret weather maps, and to consider the problems of aviation growing out of atmospheric conditions. Prerequisite: Geog. 111.

Geog. 352: Climatology 3 s.h.

A systematic study of the climatic regions of the earth, with advantages and limitations of each for human occupancy. The physical aspects of the atmosphere and the regional characteristics of climate are investigated. This course provides a valuable background for courses in Economic Geography, Political Geography, and the regional courses of the earth's continents. Prerequisite: Geog. 111.

Geog. 353: Descriptive Astronomy 3 s.h.

The motions of the earth, moon, and planets and their connotations; the nature of the sun; the instruments of the astronomer, with observations of the constellations and types of stars. Special attention is given to magnitudes, spectra, temperatures, stellar atmospheres, giant and dwarf stars, binary and variable stars, and the galaxies.

Geog. 354: Historical Geography of the United States 3 s.h.

The natural and cultural regions of pre-Columbian United States and the geography of settlement and regional development of the country to 1890. This course is very desirable for history majors. Prerequisite: Geog. 111.

Geog. 355: Geography of the Soviet Union 3 s.h.

This regional study deals with Russia's location, size, surface features, climate, vegetation, soils, mineral wealth, occupations, production, transportation, and government. Russia's future production and economic and political influence are considered. Prerequisite: Geog. 111.

Geog. 356: Geography of Europe 3 s.h.

A study of European landscapes and regions which seeks to develop an understanding of the geographic basis of Europe's major economic and social problems. Emphasis is upon western Europe; the Soviet Union is not included in this course. Recommended for majors in history. Prerequisite: Geog. 111.

Geog. 357: Geography of Asia**3 s.h.**

A regional course stressing the interrelationship of the economic, social, and political life of the people with their spatial environment. Problems of over population, standards of living, natural resources, industry, and government are emphasized. The Soviet Union is not included in this course. Prerequisite: Geog. 111.

Geog. 451: Cartography**3 s.h.**

A study of the basic concepts in map design and techniques of map construction with special emphasis on actual map compilation and drawing. The course treats the evolution of maps, types of maps and their usefulness, map scales, use of aerial photographs as a source of map data, and the kinds and uses of drafting instruments. Two lectures and three hours laboratory weekly. Prerequisite: Geog. 111.

Geog. 452: Geography of Latin America**3 s.h.**

A comparative study of the geographical regions of Middle and South America. Latin American relations with the United States and the rest of the world are interpreted through an analysis of the economic, social, and cultural activities of man in relation to the physical factors of his environment. Prerequisite: Geog. 111.

Geog. 453: Geography of Africa and Australia**3 s.h.**

A regional study of Africa, Australia, and the neighboring islands of the Pacific, showing the social and economic developments of these lands in relation to their physical environment. Their political affiliations, the geographic aspects of colonial problems, land tenure, race, and the significance of production and strategic location are considered. Prerequisite: Geog. 111.

Geog. 454: World Problems in Geography**3 s.h.**

A study of Political Geography treating geographic factors that influence the character, development, and functioning of political units, especially the national state. The internal areal structure and external relations of nation states are studied as factors of political power. Natural, cultural, and ethnic regions of political areas are brought into focus, including core areas and capitals, dependent areas and colonies, and the communication lines necessary to maintain them. Points and zones of international conflict are connected with the practice of great power politics and with problems of world peace. Recommended for majors in history. Prerequisite: Geog. 111.

GERMAN

Ger. 151: German I (Elementary I)**4 s.h.**

Essentials of grammar, inductively presented. Emphasis on aural comprehension and oral expression, with extensive use of the language laboratory. Students may not receive credit for this course until German 152 has been successfully completed. Exceptions may be made for seniors and transfers upon the recommendation of the Department Head.

Ger. 152: German II (Elementary II)**4 s.h.**

Continuation of German 151, with increasing emphasis on graded reading material. Prerequisite: German 151, or permission of the instructor.

Ger. 153: Elementary German Conversation 3 s.h.

Conversational practice, with extensive oral drill of grammatical patterns. Designed for those students who have met the prerequisites for German 251 but are lacking in aural-oral proficiency. May be taken concurrently with German 251.

Ger. 251: German III (Intermediate I) 3 s.h.

Brief systematic review of basic grammar; graded readings; conversation and composition on everyday topics. Prerequisites: German 152 or two years of high school study and/or a satisfactory placement test score.

Ger. 252: German IV (Intermediate II) 3 s.h.

Intensive reading of selected short stories and/or other works; outside reading, with oral and/or written reports. Prerequisites: German 251 or three years of high school study and/or a satisfactory placement test score.

Ger. 253: Scientific German 3 s.h.

A study of scientific terminology and style, with extensive readings in various scientific fields. Prerequisite: German 251 or equivalent. Science and mathematics majors may substitute this course for German 252.

Ger. 255: German Civilization I 3 s.h.

A survey of German geography, history, literature and culture, designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful and integral part of a great civilization. Prerequisites: German 252 or four years of high school study and/or a satisfactory placement test score.

Ger. 256: German Civilization II 3 s.h.

Continuation of German 255, which is prerequisite. These two courses are required of all majors.

Ger. 351: Advanced German Grammar and Composition 3 s.h.

Intensive oral and written drill, with emphasis on finer points of grammar, colloquial, and idiomatic usage. English-to-German translation, free composition, and conversation on everyday topics. Prerequisites: German 255 and 256 or one literature course.

Ger. 352: Survey of German Literature through the Classical Age 3 s.h.

Study and discussion of the main trends of German thought and literary expression. Emphasis is placed upon the works of Goethe, Schiller, and Lessing.

Ger. 353: The Modern German Drama 3 s.h.

German drama from the middle of the 19th Century to the present, covering representative writers of the Realist, Naturalist, and Expressionist movements, as well as selected contemporary writers.

Ger. 354: The Modern German Novel 3 s.h.

The German novel of the last hundred years with emphasis on 20th Century writers such as Thomas Mann, Franz Werfel, Hermann Hesse, et al.

Ger. 355: German Romanticism 3 s.h.

The older and younger schools of German Romanticism (Jena, Berlin, and Heidelberg) with emphasis on the revival of folk poetry, and consideration of influences upon American Romanticism. Representative authors: Hölderlin, Novalis, Arnim, and Brentano.

Ger. 358: Classical German Literature:
Goethe, Schiller and Lessing 3 s.h.

Goethe's *Faust* and other great works of the Golden Age of German literature.

Ger. 451: Supervised Readings in German Literature 3 s.h.

The course is devoted to selected readings determined in relation to the needs and interests of the individual major.

HEALTH AND PHYSICAL EDUCATION

HPE 111: Health Education 2 s.h.

Consideration of the physical and mental equipment of the individual and of the practical application of health knowledge in personal and community living.

HPE 112: Physical Education I 1 s.h.

The development and practice of skills and attitudes in seasonal activities which may be carried on in college and after college. Achievement tests are given to determine the needs of the student.

HPE 121, 221, 321, 421: Physical Education 1 s.h.

Varied physical education activities for women, including archery, badminton, basketball, bowling, the dance, golf, skiing, swimming, tennis, and volleyball. Two hours per week.

HPE 211: Physical Education II 1 s.h.

A continuation of Physical Education I with greater emphasis and active participation in activities learned in Physical Education I.

HPE 212: Physical Education III 1 s.h.

Specialization in selected activities aimed to bring personal performance ability to advanced levels.

HPE 223: Physical Education 1 s.h.

A course especially designed for Elementary majors with emphasis upon activities related to the elementary school. Required for all men and women majoring in Elementary Education. Two hours per week.

HISTORY

Hist. 111: History of Ancient and Medieval Civilization 3 s.h.

The course includes a survey of prehistoric cultures, the earliest civilizations, and European Medieval civilization to 1648. Its purpose is to present

a knowledge of the origins of the broad social, political, intellectual, and economic movements of the past from which the student may gain an understanding of civilization today.

Hist. 112: History of Modern Civilization 3 s.h.

A study of significant movements and events from 1500 to the present. The course emphasizes the interrelationships between cultures of various regions of the world, with major attention to the influence Western European development has exerted on other areas.

Hist. 213: History of the United States and Pennsylvania 3 s.h.

A survey of United States and Pennsylvania history from the period of exploration to the present.

Hist. 254: History of Latin America: Colonial Period 3 s.h.

This course surveys the development of Colonial Latin America from its discovery to 1825. The economic, social, cultural, and political aspects of native Indian, Spanish, and Portuguese civilizations in the Old and New World are given detailed attention.

Hist. 255: History of Latin America: National Period 3 s.h.

The main emphasis in this course is on the history of the twenty Latin American countries since 1825. The economic, social, political, and cultural development receives detailed attention. The course also surveys Latin America's international relations with emphasis on U. S.-Latin American relations.

Hist. 256: History of Pennsylvania 3 s.h.

A study of the founding and development of Pennsylvania from its colonial beginning to the present time. Emphasis is placed on the social, economic, and political development in the different periods of its history. Special attention is given to the diversity of the people, their institutions and problems, and the growth of Pennsylvania to a leading position in our modern industrial world.

Hist. 257: History of the Near East 3 s.h.

This survey is an area study of the early classical era by way of an advanced intensive exploration of the civilizations in the Mediterranean East and the Middle East. After an introduction to the religions of Judaism and Christianity in their political setting, the cultural contributions of the Semites, Greeks, and Romans are examined. The Islamic Age is stressed. Emphasis is placed upon modern identification of the countries that make this an explosive part of the world—Jordan, Israel, Lebanon, Iran, Iraq, Arabia, Syria, Egypt, Turkey. Their relationship to the great powers is given attention.

Hist. 258: History of Asia—Ancient and Medieval 3 s.h.

The course is a study of the foundation of the cultures and the development of the civilizations of the people of India, Imperial China, Colonial

Southeast Asia, Korea, and Japan. The influence and importance of ideas in this area are traced and emphasized from the ancient setting of early classic China to the collapse of the Ch'ing dynasty in China and to the close of the Tokugawa shogunate in Japan. Prerequisite: 12 semester hours of Social Studies.

Hist. 259: History of Asia—Modern

3 s.h.

The course covers the recent political and commercial history of Asia from the Portuguese expansion in China in the sixteenth century to the penetrating influence of the United States of America in Japan, Korea, Republic of the Philippines, and Vietnam in the twentieth. India, Southeast Asia, and Japan are examined in the age of imperialism. Colonialism and nationalism in all the peripheral areas of modern East Asia receive marked attention. The rise of the Chinese Republic, European powers in Asian politics, the Peoples' Republic of China, Taiwan, Indonesia, and Malaysia are topics treated. Recognition is given to the food-population dilemma and the clash of ideologies. Prerequisite: 12 semester hours of Social Studies.

Hist. 310: Ancient History

3 s.h.

This course is the story of the first phase of Western civilization. From its inception in the great river valleys of the Near East about 3000 B. C. through its adoption by the Greeks, Romans, and Western Europe to the fall of Rome, the origin of institutions and other man made developments are stressed.

Hist. 320: Medieval History

3 s.h.

A study of the Middle Ages from the fall of Rome to 1500. Prerequisite: Hist. 111 or consent of the instructor.

Hist. 330: Europe during the Renaissance

3 s.h.

A survey of the course of Europe's development from the thirteenth through the sixteenth centuries with emphasis on political, social, economic and cultural trends and achievements and the problems of historical interpretation they pose.

Hist. 335: Europe during the Reformation

3 s.h.

A survey of Europe's development during the sixteenth and seventeenth centuries with particular attention to the role of religion and religious issues and to the interaction between religion and political, economic and cultural affairs.

Hist. 340: History of Europe from 1660 to 1814

3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Age of Louis XIV through the Napoleonic Wars.

Hist. 345: History of Europe from 1815 to 1924

3 s.h.

A study of the social, economic, political, religious, and cultural experiences of the European people from the Congress of Vienna to the death of Lenin.

Hist. 354: Contemporary American History 3 s.h.

This course is a study of the development of our nation through the Progressive Era, the First Rooseveltian period, World War I, the New Freedom, the Depression, the New Deal, isolationism, World War II, the Cold War, the Korean War, nuclear diplomacy, Eisenhower Republicanism, the New Frontier of Kennedy, and the Great Society of President Johnson. It includes political, social, and economic developments of the past six decades.

Hist. 355: Economic History of United States 3 s.h.

A survey of the economic history of the United States and a study of the relationship of the economic and the political and social factors in the development of America. Prerequisite: Hist. 213.

Hist. 356: Contemporary European History 3 s.h.

In this course the diplomatic background, the testing of the alliances, World War I, and the results of the Treaty of Versailles are emphasized. The various ideologies of government and economics are examined. Europe is placed in its proper setting of world significance.

Hist. 357: History of England to 1689 3 s.h.

A comprehensive course in the History of the British Isles to the time of the Glorious Revolution. It is primarily for Juniors who are majoring in English or Social Studies.

Hist. 358: History of England since 1689 3 s.h.

A comprehensive course in the cultural, political, and economic history of modern England.

Hist. 359: History of the American Frontier 3 s.h.

This course includes the geographic continuity in the westward expansion of United States rather than the chronological. The historical period stressed in this course is from 1607 to 1893, the period when the American frontier was in the process of developing.

Hist. 360: Colonial America 3 s.h.

A study of colonial history beginning with the European background of colonization and continuing through the American Revolution. Prerequisites: Hist. 211 or consent of the instructor.

Hist. 361: History of American Science and Technology 3 s.h.

This course places emphasis on the historical survey of the development of American science and technology and of their effect on the growth of America's culture. America's contributions to the rest of the world along the lines of science and technology are stressed.

Hist. 365: History of Russia 3 s.h.

This course is a concise presentation of Russian history from the beginnings of the Russian people up to and including the study of postwar Russia. The political, socio-economic, and intellectual development and periods of conflict are stressed in the light of present-day Russia.

Hist. 367: Latin America and its World Relationships 3 s.h.

This course is a survey of Latin America's interrelationships with other world areas. It includes Latin America's place in world politics, its position in the international economic sphere, and its society and culture in a world context. Special emphasis is placed on U. S.-Latin American relations.

Hist. 452: Diplomatic History of United States 3 s.h.

A study of American diplomatic history from 1789 to the present. The course traces the development of major foreign policies and studies the national and international factors which influence and determine these policies. Prerequisite: Hist. 213.

Hist. 453: Twentieth Century World History 3 s.h.

The significance of events in the present century is brought out in this course by a study of the growth of capitalism, imperialism, totalitarianism, international jealousies, World Wars I and II, and the attempt of the family of nations to find world peace through international understanding.

Hist. 454: The British Commonwealth of Nations 3 s.h.

An advanced elective course on the formation and career of the British Commonwealth.

Hist. 455: The Culture of Europe (Educational Tour) 6 s.h.

Recent history and government of selected countries of Europe is stressed. Emphasis is placed upon England, Holland, Germany, Switzerland, Italy, and France as the educational tour develops into the foreign study program. In alternate years the countries of the Balkans, Greece and Turkey, and the countries of Scandinavia, Finland, Sweden, Denmark, and Norway are emphasized. English and German literature, the art and architecture of the Renaissance in Northern Italy, and the agricultural-industrial economy in France receive intensive study. Geographical bases of cultural developments are noted. Recent developments in science, politics, and economics receive attention. The main term paper stems from a problem or project or discovery as observed by each student. This paper is due within 60 days upon the ending of the summer session class abroad.

Hist. 456: Society and Thought in America to 1865 3 s.h.

The development of society and thought during the colonial and middle periods of American history. Prerequisite: Hist. 213 or consent of the instructor.

Hist. 457: Society and Thought in America—1865 to Present 3 s.h.

The development of society and thought during the modern period of American history. Prerequisite: Hist. 213 or consent of the instructor.

Hist. 458: English Constitutional History 3 s.h.

A consideration of Constitutional government in England from the beginning of English history to the present. The study of governmental powers, political and judicial process, and the relationship of liberty and authority to the individual living under the government is included.

LIBRARY SCIENCE

L.S. 255: History of Books and Libraries 2 s.h.

Survey of the role and function of libraries as educational institutions in our society, including contributions of books and libraries. Emphasis on issues and trends today. History of printing, the alphabet, early writing, art of illustrating, and book production.

L.S. 256: Administration of School Libraries 3 s.h.

Study of the objectives and functions of the school library with emphasis on the instructional materials center concept. Technical and administrative procedures; budget preparation; personnel; space and equipment needs; acquisition, preparation, and circulation of materials (all forms); maintenance of the collection; standards for evaluation of school libraries; relations with other school libraries and the public library. Developing a functional school library program.

L.S. 257: Basic Reference Sources and Services 3 s.h.

Emphasis on the approaches to locating information; criteria for selection of reference materials; examination of reviewing media for new reference aids; and organization of reference service. Study of a selected list of reference works. (Recommended as an elective for non-library science students.)

L.S. 258: Selection of Library Materials 3 s.h.

Familiarity with basic bibliographical tools in the field, including current reviewing media. Structure of the publishing industry, major publishers, editions, and series. Analysis of materials in relation to the needs, interests, and ability level of children and young people. Establishment of policies and criteria for the selection and evaluation of book and non-book materials. Development of a professional collection for the school. Prerequisite to L.S. 358, Library Materials for Children, and L.S. 356, Library Materials for Young People.

L.S. 259: Art for Librarians 1 s.h.

Development of basic skills and understanding of art and its relationship to good library procedures. Provides practical studio work in the elements of graphic expression, lettering, display and exhibition work, publicity techniques, layout, poster making, printing, book jacket design, book-binding, and related craft activities.

L.S. 260: Development and Administration of Libraries 3 s.h.

The development of the library as an institution, the concept of a philosophy of librarianship, general principles of administration and their application to the organization and management of different types of libraries. Problems and practices with respect to a library's function, staff, collections, and building.

L.S. 356: Library Materials for Young People 3 s.h.

Survey of young people's literature and related materials, including study of the classics. Amplification and refinement of the principles of selection and evaluation of books, periodicals, and other materials for young people. Reading guidance for this age group with attention to special groups,

such as the gifted and retarded reader. Development of general and subject bibliographies, preparation of annotations. Techniques of developing book talks and book reviews. Prerequisite: L.S. 258.

L.S. 357: Cataloging and Classification 3 s.h.

Acquisition, organization, preservation, and circulation of print and non-print materials for effective service. Principles and methods of descriptive cataloging, the structure and application of the Dewey Decimal Classification, Sears subject headings, Rue-LaPlante subject headings, and the use of printed cards. Utilization of work simplification techniques where applicable. Maintenance of library catalogs—shelf list, divided and unified catalog, the printed book catalog. Preparation of a practice card catalog.

L.S. 358: Library Materials for Children 3 s.h.

Survey of children's literature and related materials. Amplification and refinement of the principles of selection and evaluation of books, periodicals, and other materials for children. Reading guidance for this age group with attention to materials for special groups. Development of general and subject bibliographies, preparation of annotations. Techniques of storytelling and the selection of materials for the story-hour. Prerequisite: L.S. 258.

L.S. 359: Curriculum Enrichment 3 s.h.

Planning for the effective use of library services and materials (all forms) supportive of the school's curriculum. Includes examining school library philosophies and specific objectives of public school systems; developing guidelines for the preparation of a course of study for the library program incorporating desirable library study skills and attitudes for grades K-12. Gaining experience in the preparation of purposeful lesson plans with supportive activities and resources for instructional use with children and young people. Culminating activities which re-examine the role of the librarian as (1) curriculum worker, (2) media specialist, (3) library administrator, (4) teacher, (5) advisor and stimulator of reading activities for boys and girls.

L.S. 455: Non-Book Materials as Library Resources 3 s.h.

Selection, acquisition, organization, storage, and maintenance of non-book materials in libraries and system-wide materials centers. Emphasis is given to those media increasingly important to library collections: motion pictures, filmstrips, slides, transparencies, microforms, disc and tape recordings, pictures (art and study prints), maps, and programmed instructional materials. Methods of instruction in the use of such materials are studied. Some materials are heard and/or viewed and evaluated.

L.S. 456: Administration of the District Materials Center 3 s.h.

Presentation of the single agency concept of multi-media instructional services through a system-wide center: centralized selection, acquisition, and processing of print and non-print materials for building library resource centers. Survey and evaluation of the possible uses of data processing equipment within the traditional library functions—acquisitions, catalog card production, union catalog, etc. Functions and duties of the personnel involved in the coordination of library and audio-visual services.

L.S. 457: Independent Study Seminar 1-3 s.h.

Opportunity for a student to explore in depth a facet of librarianship according to his interest or need under the direction of a faculty member of

the department. Special area to be approved by a faculty committee. Development of research techniques, a scholarly paper, or a special project.

Colloquium

no credit

A series of library visits, lectures, discussions, film demonstrations, etc., presented by members of the staff and visiting lecturers.

MATHEMATICS

Math. 111: Basic Mathematics for Elementary Teachers 3 s.h.

Structure of the real number system. Elementary set theory. Open to elementary education majors only.

Math. 112: Basic Mathematics 3 s.h.

An introduction to some of the basic concepts of contemporary algebra. Topics include: sets, numbers, language of algebra, equations and inequalities, exponents, radicals, relations and functions.

Math. 151: College Algebra 3 s.h.

Polynomials, equations and inequalities, exponents and radicals, logarithms. Prerequisite: 1 year of high school algebra and 1 year of high school geometry.

Math. 152: Trigonometry 3 s.h.

Properties of trigonometric functions and their inverses.

Math. 171: College Algebra and Trigonometry 4 s.h.

Review of high school algebra, inequalities, analytic trigonometry, logarithms, elementary theory of equations, complex numbers, and mathematical induction. Prerequisite: 2 years of high school mathematics.

Math. 172: Calculus with Analytic Geometry I 4 s.h.

Elementary analytic geometry, limits, continuity, differentiability. Prerequisite: Math. 171.

Math. 211: Modern Concepts of Mathematics for Elementary Teachers 3 s.h.

Real number system, introduction to elementary abstract algebra, set theory. Open to elementary education majors only. Prerequisite: Math. 111.

Math. 221: Elements of Statistics 3 s.h.

Basic principles and methods of statistical analysis useful in the social sciences, biology and education, designed specifically for students not majoring in mathematics. (Not open to mathematics majors.)

Math. 271: Calculus with Analytic Geometry II 4 s.h.

Review of limits, definition of Riemann integral and applications. Integration techniques, topics in analytic geometry. Prerequisite: Math. 172.

Math. 272: Calculus with Analytic Geometry III 4 s.h.

Basic properties of limits, continuous and differentiable functions. Sequences, series, solid analytic geometry, functions of several variables, multiple integrals. Prerequisite: Math. 271.

- Math. 352: Probability** 3 s.h.
Basic concepts of elementary probability, probability in finite sample spaces, conditional probability; independent trials; sophisticated counting; probability in relation to random variables. Prerequisite: Math. 272.
- Math. 355: History of Mathematics** 3 s.h.
Study of the growth of mathematics through the centuries and the men who contributed to it. Prerequisite: Math. 272.
- Math. 357: Modern Geometry** 3 s.h.
Axiomatic treatment of topics in geometry. Prerequisite: Math. 272
- Math. 358: Computer Principles I** 3 s.h.
Beginning course in computer programming. Includes introduction to the operation of the computer; fundamental concepts of programming, including SPS (Symbolic Programming System). Emphasis is placed on writing and "debugging" programs.
- Math. 359: Computer Principles II** 3 s.h.
Advanced course in SPS Programming. Emphasis is on writing and analyzing programs. Prerequisite: Math. 358.
- Math. 371, 372: Modern Algebra I, II** 3 s.h. each
An introduction to groups, rings, integral domains, fields, and elementary linear algebra. Prerequisite: Math. 272.
- Math. 452: Ordinary Differential Equations** 3 s.h.
First order differential equations. Linear differential equations of higher order; systems of differential equations. Series methods. Prerequisite: Math. 272.
- Math. 454: Theory of Numbers** 3 s.h.
Properties of integers; divisibility; congruences. Prerequisite: Math. 272.
- Math. 456: Mathematical Statistics** 3 s.h.
Mathematical expectation; discrete and continuous random variables; probability densities; sampling distributions; point estimations; interval estimation; tests of hypotheses; regression and correlation; analysis of variation; moment-generating functions. Prerequisites: Math. 352 and 272.
- Math. 471, 472: Advanced Calculus I, II** 3 s.h. each
Limits, continuity, differentiability, integrability and convergence for functions of a real variable and of several variables. Prerequisite: Math. 272.
- Math. 473: Elementary Topology** 3 s.h.
Topological spaces, metric spaces, compactness, connectedness. Prerequisite: Math. 272.

MUSIC

- Mus. 111: Introduction to Music** 3 s.h.
An introductory course designed to provide a basic orientation to the understanding of music. Use is made of recordings, concerts, and other

media. Required of all teacher education students except Elementary Education majors. No prerequisite courses or special abilities required.

Mus. 131: Literature and Materials of Music I (Elementary) 3 s.h.

The basic vocabulary of music fundamentals: notation, scale structures, intervals, triads and seventh chords, rhythm and meter, phrase and cadence, overtone series, modulation, introductory study of two-and-three-part forms, etc. No prerequisite.

Mus. 132: Literature and Materials of Music II (Elementary) 3 s.h.

A study of recent methods and materials for teaching music in the elementary grades. Emphasis on development of reading ability. Includes drills in sight-singing and melodic dictation. Also includes an introduction to music of various historical periods and styles. Prerequisite: Music 131.

Mus. 135: Theory of Music I 3 s.h.

Review of fundamentals: notation, scales, key signatures, intervals, chord structures, etc. Introduction to harmony: voice ranges, function of primary triads, cadences, voice leading, harmonizing melodies with I, IV, V. Ear training: pitch, rhythm, timbres. Sight singing: structure of the phrase, multiple-phrase sentences, folk song. Introduction to rhythmic, melodic, and harmonic dictation. For music majors or by permission.

Mus. 136: Theory of Music II 3 s.h.

Continuation of Theory of Music I. Further aspects of harmony: first inversion, secondary triads, embellishing tones, root movements, second inversion, etc. Introduction to formal analysis (phrase relationships), harmonic and melodic analysis. Introduction to composition: simple formal structures. Further development of ear training, sight singing, and dictation. For music majors or by permission. Prerequisite: Music 135.

Mus. 151: History and Literature of Music I. Antiquity to 1600. 3 s.h.

Music before the Middle Ages: Greece, Rome, Byzantium. Medieval music: Gregorian Chant, secular forms. Early polyphony; music of the 13th century. Ars Nova in France and Italy. English and Burgundian schools: Burgundian Chanson, motet, Mass. Renaissance music: social conditions; Netherlands Chanson, motet, Mass. Venetian, French, German, Spanish, and English music of the Renaissance. The Late Renaissance: Lutheran Chorale; Psalter; Anglican Church music; Palestrina, Victoria, Di Lasso, Byrd. English keyboard music; Gabrieli and instrumental music.

Mus. 152: History and Literature of Music II. Baroque and Classic: 1600-1800 3 s.h.

Comparison of Renaissance and Baroque music; Early Baroque in Italy; Early and Middle Baroque in Northern countries; Middle Baroque in Italy; French music under absolutism; English music during Commonwealth and Restoration; Late Baroque in Italy and France; fusion and co-ordination of national styles; social conditions; Rococo; the Viennese classic period; style and form in Viennese classic music: Haydn, Mozart. For Music majors, or by permission. Prerequisite: Music 151.

Musical Organization Catalog Numbers 0 s.h.

Mus. 153: Concert Choir 0 s.h.

Mus. 154: Madrigal Singers 0 s.h.

Mus. 155: Orchestra 0 s.h.

Mus. 156: Concert Band 0 s.h.

Mus. 157: Marching Band	0 s.h.
Mus. 158: Chamber Music Ensemble	0 s.h.
Mus. 159: Symphonic Wind Ensemble	0 s.h.
Applied Music	

Individual instruction in voice, piano, strings, woodwinds, and brass. Stress is placed on the development of an attitude of artistic maturity on the part of the student, and upon artistic performance at all levels of proficiency. Admission by audition and permission of instructor only. Prerequisite: Mus. 131 or equivalent background. Course numbers are listed below.

Mus. 160: Piano (class)	1 s.h.
Mus. 161: Piano	1 s.h.
Mus. 162: Voice (class)	1 s.h.
Mus. 163: Voice	1 s.h.
Mus. 164: Violin, viola	1 s.h.
Mus. 165: Cello, string bass	1 s.h.
Mus. 166: Flute, clarinet	1 s.h.
Mus. 167: Oboe, bassoon	1 s.h.
Mus. 168: Trumpet, French horn	1 s.h.
Mus. 169: Trombone, tuba	1 s.h.
Mus. 170: Percussion	1 s.h.
Mus. 231: Teaching Music Creatively	3 s.h.

The various activities of the elementary music program (singing, listening, reading, moving, and playing of instruments) are approached through creative and experimental techniques which permit the child to learn with the body, mind, spirit, and through his whole personality. Each phase of the program should emerge as a vital creative activity.

Mus. 232: Keyboard Skills for Elementary Teachers	3 s.h.
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Various styles of accompaniment for rote playing or sight reading of classroom and community songs. Emphasis upon the development of technical skills, reading facility and memorization.

Mus. 233: Song Literature for Elementary Teachers	3 s.h.
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A further study of the materials used in music education in the elementary school, including songs suitable for rote teaching or for reading, folk songs from various countries, and appropriate art songs. Emphasis on the development of the singing voice and the achievement of vocal command of representative song literature.

Mus. 235: Theory of Music III	3 s.h.
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Continuation of Theory of Music II. Further aspects of harmony: dominant seventh, suspension, other seventh chords, dominant ninth and thirteenth, secondary dominants, diatonic modulation. Melodic analysis: plain chant to folk song, melodic and rhythmic features of motives, continuation of formal and harmonic analysis. Further experience in composition: melodic rhythm, harmonic generation of melody, considerations of vocal music. More complex formal structures: art song, sonata-legato form, rondo form. Introduction to counterpoint in two parts. Advanced ear training, sight singing, and dictation. For Music majors, or by permission. Prerequisite: Music 136.

Mus. 236: Theory of Music IV	3 s.h.
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Introduction to chromatic harmony, chromatic modulation. Musical analysis of scores: choir, band, orchestra, chamber music (formal, melodic rhyth-

mic, harmonic, and contrapuntal analysis). Composition: techniques of variation. Formal investigation of fugue. Counterpoint in three parts. Advanced experience in ear training, sight singing, and dictation. For Music majors or by permission. Prerequisite: Music 235.

Mus. 251: History and Literature of Music III. Beethoven, and the Romantic Period: 1800-1890. 3 s.h.

Beethoven: life and character; Beethoven's music. Romanticism: historical perspective; social conditions; painting and literature. Vocal music; instrumental music; opera and music drama. The national schools: Russia; Bohemia; Scandinavia; France; England; Spain; American music. For Music majors, or by permission. Prerequisite: Music 152.

Mus. 252: History and Literature of Music IV. Contemporary music: 1890 to the Present. 3 s.h.

The late romantics: impressionism; Stravinsky; Bartok; Hindemith; neo-classicists; nationalists; Soviet realism; new romantics; 12-tone composers; expressionism; serial music; Schoenberg; Berg; Webern; etc.; experimentalists; electronic music; Stockhausen, Boulez, etc. American music from the late 19th century to the present. For Music majors, or by permission. Prerequisite: Music 251.

Mus. 253: Harmony I 3 s.h.

Aspects of chord connection and voice-leading in four-part writing. Primary and secondary triads and their inversions; seventh chords; non-harmonic tones; simple modulation. Harmonic analysis of representative musical examples to determine creative practices of composers of various periods. Prerequisite: Music 131 or equivalent musical background.

Mus. 254: Harmony II 3 s.h.

A continuation of Music 253. Chromatic harmony; altered chords; contrapuntal aspects of four-part writing. Further harmonic analysis of musical examples extending from Bach Chorales to a variety of contemporary works. Prerequisite: Music 253.

Mus. 255: Ear Training and Sight Singing 3 s.h.

Training and practice in melodic, rhythmic and harmonic dictation to develop ability to identify, understand, and write what is heard. Emphasis on singing at sight from a score and on aural analysis of melody and harmony. Prerequisite: Music 131.

Mus. 256: Keyboard Harmony 1 s.h.

A practical application at the keyboard of the essentials of harmony, designed to help the student develop a sense of good chord progression and to master extempore keyboard harmonization, transposition, and improvisation. Prerequisite: Music 131 or 135, plus 2 semesters of applied piano.

Mus. 257: History of Music I 3 s.h.

A study of western music from its origins in ancient Egyptian, Chinese, Hebrew, and Greek cultures through the development of plainsong and polyphony to Haydn and Mozart. Analysis of styles and techniques employed by various composers and of concurrent trends in the other arts.

Mus. 258: History of Music II**3 s.h.**

A continuation of Music 257. A detailed study of music through listening and score analysis from Beethoven to the present, emphasizing development and experimentation in technique throughout the twentieth century. Music 257 desirable but not required.

Mus. 259: Band and Orchestra Instruments I**3 s.h.**

The construction, tone quality, range, and special uses of each instrument in solo capacity or as part of the orchestra or band. Practical work includes learning to play and to demonstrate the various instruments, with emphasis on fundamental techniques.

Mus. 260: Band and Orchestra Instruments II**3 s.h.**

A continuation of Music 259. Instrumental techniques and uses as related to ensemble and solo playing. Study of the mechanics of each instrument; fingering of difficult passages; securing and maintaining tonal balance in an instrumental organization; preparation for arranging; clinical examination of new materials. Prerequisite: Music 259.

Instrumental Techniques

This sequence of courses is designed to acquaint the music education major with a basic knowledge of the instruments commonly used in bands and orchestras. Sufficient technique must be developed by each student to enable him to introduce these instruments successfully to beginners in elementary or secondary school instrumental programs. Includes proper methods of tone production, fingerings, bowing techniques, embouchure and breath control, selection and purchase of instruments for school use, care and maintenance of instruments, selection, care, and adjustment of reeds or strings, storage of instruments, methods used in instruction of the instrument, and historical aspects of each family of instruments.

Mus. 261: Instrumental Techniques I: violin, viola 1 s.h.

Mus. 262: Instrumental Techniques II: cello, string bass 1 s.h.

Mus. 263: Instrumental Techniques III: flute, oboe, saxophone 1 s.h.

Mus. 264: Instrumental Techniques IV: clarinet, bassoon 1 s.h.

Mus. 265: Instrumental Techniques V: trumpet, French horn 1 s.h.

Mus. 266: Instrumental Techniques VI: trombone, tuba 1 s.h.

Mus. 267: Instrumental Techniques VII: percussion 1 s.h.

Mus. 333: Elementary Music Methods 3 s.h.

The role of music in the elementary school; the roles of the classroom teacher, the music specialist, and the music consultant. Plans, attitudes, and problems in teaching music; curriculum development. Evaluation of musical experience and growth in primary, intermediate, and upper elementary grades. Music reading as an integral part of the total music program. Musical growth and experience in singing, part-singing, listening, instrumental and rhythmic activities. Emphasis on development of ability to use the voice effectively in teaching and on the thorough familiarity with music series texts, use of keyboard, rhythmic instruments, recordings, and new developments in teaching aids. Supervised teaching experience.

Mus. 334: Junior High and Secondary Music Methods**3 s.h.**

A critical study of the entire intermediate and secondary school music program: academic, vocal and instrumental. Curriculum planning, motivation, evaluation, selection of materials and texts, audio visual aids, and effective

tive teaching methods for the general music course and for elective courses in theory, history, and appreciation of music. Particular attention will be given to the organization and development of both large and small vocal and instrumental groups; recruitment; selection of repertoire; performance levels; music rehearsal rooms and facilities; public performance and public relations.

Mus. 351: Keyboard Literature

3 s.h.

A comprehensive survey of keyboard music from the Renaissance to the present. Representative works from each period will be selected for careful study and analysis, with emphasis on performance practices as well as formal and stylistic elements in the music. Includes the development of various keyboard instruments. Prerequisite: Music 251, 252, or permission of instructor.

Mus. 352: Symphonic Literature

3 s.h.

An intensive study of orchestral music from the Baroque period to the present, using scores, live performances, and recordings with particular reference to performance practices and stylistic analysis. Prerequisites: Mus. 251, 252.

Mus. 353: Chamber Music Literature

3 s.h.

An intensive study of music written for small ensembles from the Renaissance period to the present. Representative works from each period will be selected for careful investigation and analysis. Performance by members of the class or by faculty groups will be used wherever possible. Prerequisite: Mus. 251, 252.

Mus. 354: Contemporary Music

3 s.h.

A critical study of music in the twentieth century with emphasis on the works of Stravinsky, Hindemith, Schoenberg, and Bartók; English, French, Russian, and German contemporaries; composers working in the United States today. Prerequisites: Mus. 251, 252.

Mus. 355: Operatic Literature

3 s.h.

A comprehensive survey of the entire field of operatic music from 1600 to the present, including 17th century Baroque opera; 18th century operatic reforms (Gluck and Mozart); opera in the 19th century (Verdi, Wagner, Strauss, and Puccini); 20th century trends in opera (Stravinsky, Berg, Britten, Menotti, etc.). Prerequisites: Mus. 251, 252.

Mus. 356: Choral Literature

3 s.h.

A comprehensive survey of choral music from the fifteenth century to the present with emphasis on masses, motets, and madrigals of the Renaissance period; oratorios, cantatas, and Passions of the Baroque period; major choral works of Haydn, Mozart, Beethoven, Berlioz, Mendelssohn, Verdi and Brahms; choral works of the twentieth century. Prerequisites: Mus. 251, 252.

Mus. 357: Band Literature

3 s.h.

A comprehensive survey of the available published and recorded literature for marching, military and concert bands, symphonic wind ensembles, and woodwind and brass chamber ensembles including transcriptions and arrangements; major publishers in the field; evaluation of various editions;

and also a study of the principal trends of instrumental pedagogy, repertoire, and performance. Prerequisites: Mus. 131, 132.

Mus. 358: Trends in American Music 3 s.h.

A study of the development of music in America from pre-Revolutionary times to the present. Extensive outside reading. Prerequisite: Mus. 131, 132.

Mus. 361: Piano Teaching Methods and Materials 3 s.h.

A comprehensive survey of modern piano teaching methods and available published teaching materials. Emphasis will be placed on the teaching of notation and the development of reading skills; the teaching of keyboard techniques through an understanding of the player's physical mechanism and the coordination of timing and touch; problems of fingering, pedaling, and memorization. Evaluation of materials for beginning students; easier teaching pieces by the great composers; anthologies; appropriate music for the intermediate student, leading to a more advanced technique and musicianship and to acquaintance with a wide range of composers and musical styles. Prerequisites: Music 151, 152; or, Music 131 and permission of the instructor.

Mus. 362: Instrumental Methods 2 s.h.

Principles and procedures of organizing and conducting instrumental classes, bands, and orchestras in the public schools. Examination and use of texts, methods, and other materials.

Mus. 363: Vocal Methods 2 s.h.

Principles and procedures of organizing and conducting vocal classes and choral ensembles in the public schools. Vocal techniques, tone production, proper vowel placement, proper focus of tone, diction, diaphragmatic breathing, and investigation of choral literature.

Mus. 364: Composition 3 s.h.

A study of the nature of the musical idea and of the various possibilities of its subsequent development, including canonic or fugal treatment, motivic development, and variational procedures. A review of traditional structural plans and of contemporary formal and stylistic trends. Creative assignments emphasize the understanding of past and present compositional styles and techniques and the gradual development of a personal language. Prerequisites: Mus. 151, 152.

Mus. 365: Conducting I 2 s.h.

Designed to develop skilled baton technique and clarity of gesture, effective rehearsal techniques, understanding of performance problems involving tonal balance, tempo, complex rhythmic situations, especially as related to intermediate and secondary school bands, choral groups, and orchestras. Traditional and modern beat patterns; expressive gestures; cues and development of left hand; fermata; etc. Study of choral, band, and orchestral scores; problems of interpretation and rehearsal; performance preparation.

Mus. 366: Conducting II 2 s.h.

Continuation of Conducting I with emphasis on mastery of technique; special emphasis on problems of instrumental and vocal groups in junior and senior high school. Prerequisite: Music 365.

Mus. 367: Orchestration

2 s.h.

Basic principles of clear instrumental organization and tonal interest, related to the size of the instrumental group. Ranges and registers of the instruments; transposition; bowing and phrasing; phrasing for woodwind instruments; possibilities and limitations. Texture, timbre, dynamics, principles of tonal interest: contrast of timbre; instrumental motion; blend. Structural values: design; overlapping of choirs; "light and shade." Orchestral types: Baroque; classic; modern; chamber.

Mus. 368: Band Arranging

3 s.h.

A study of instrumentation and scoring problems in marching military and concert bands, symphonic wind ensembles, and woodwind and brass chamber ensembles. Emphasis on score layout and notation, copying and multiple reproduction of parts, copyright implications, and knowledge of effective combination of instrumental sounds. Prerequisites: Music 131, 261 (or equivalent background) and permission of instructor.

Mus. 451: Advanced Orchestral Conducting

3 s.h.

A study of selected major works from the orchestral literature with particular reference to performance problems involving tonal balance, tempi, complex rhythmic and polymetric situations. Conducting experience with the orchestra. Emphasis on a thorough understanding of the musical score and on effective rehearsal techniques. Prerequisites: Mus. 251, 252, 256, and 352.

Mus. 452: Advanced Choral Conducting

3 s.h.

A study of selected major works from the choral literature with particular reference to performance problems involving diction, intonation, tonal quality and balance, tempi, complex rhythmic and harmonic situations. Conducting experience with the Concert Choir and/or Madrigal Singers. Emphasis on a thorough understanding of the musical score and on effective rehearsal techniques. Prerequisites: Mus. 251, 252, 356, and 367.

PHILOSOPHY**Phil. 111: Elementary Logic**

3 s.h.

Principles of correct reasoning; principles of deductive and inductive inference and scientific method; use and misuse of language in reasoning.

Phil. 112: Symbolic Logic

3 s.h.

A study of the essential elements of symbolic logic including Boolean expansions, truth tables (symbolic proofs), the logic of relation, quantification rules, the properties of deductive systems, and propositional calculus. Special attention is given to the theoretical contributions of Carnap, Quine, and Russell. Prerequisite: Phil. 111.

Phil. 211: Introduction to Philosophy

3 s.h.

Inquiry into the persistent problems of philosophy, primarily those concerning man, nature and God. Prerequisite: sophomore standing.

Phil. 212: Ethics

3 s.h.

Examination of the problems of value and moral standards with a view toward developing an appreciation of the nature of the moral life. Prerequisite: sophomore standing.

Phil. 255: History of Philosophy I **3 s.h.**

Thinkers from the Ancient Greeks up to the Renaissance, with special attention to Plato, Aristotle, Augustine, and Aquinas. Prerequisite: sophomore standing.

Phil. 256: History of Philosophy II **3 s.h.**

Thinkers from the Renaissance to the 19th Century, with special attention to Descartes, Spinoza, Hume, Kant, and Hegel. Prerequisite: Philosophy 211 or 255.

Phil. 350: Philosophy of Religion **3 s.h.**

Inquiry into the nature and validity of religious knowledge; the nature and existence of God; the nature of man and human destiny. Prerequisite: 3 credit hours in philosophy.

Phil. 352: Epistemology **3 s.h.**

Concepts and problems involved in the appraisal of certain types of human knowledge: perception, knowledge and belief, and truth. Prerequisite: 6 credit hours in Philosophy.

Phil. 353: Metaphysics **3 s.h.**

Inquiry into some of the fundamental philosophical concepts: being, substance, matter, mind, and God. Prerequisite: 6 credit hours in Philosophy.

Phil. 354: Aesthetics **3 s.h.**

Study of some of the aesthetic theories from Plato to the present; nature of the aesthetic experience; principles of criticism in literature and the arts. Prerequisite: 3 credit hours in Philosophy.

Phil. 355: Philosophy of Science **3 s.h.**

Methods and procedures of reliable knowledge in the formal, natural, and social sciences. Prerequisite: 3 credit hours in philosophy.

Phil. 356: Oriental Philosophy **3 s.h.**

Significant contributions to philosophical and religious thought in the Near East, India, China, and Japan. Prerequisite: 3 credit hours in philosophy.

Phil. 450: Contemporary Philosophy **3 s.h.**

Movements since the latter half of the 19th century: Naturalism, Dialectical Materialism, Positivism, and Existentialism. Prerequisite: Phil. 256.

PHYSICS

Ph. 251: General Physics I **4 s.h.**

This is a general course in mechanics, heat and sound. Topics studied include the mechanics of solids, liquids, gases, thermometry, calorimetry, heat transference, and the production and nature of sound waves including

musical sound. Designed for non-physics majors. Prerequisite: Math. 152 or Math. 171.

Ph. 252: General Physics II 4 s.h.

This is a continuation of Ph. 251, a general course in electricity, magnetism, light, and atomic physics. Topics discussed include general concepts of magnetism, electrostatics, electrical circuits, alternating currents, optical instruments, reflection, refraction, interference, spectra, and some basic concepts of atomic structure. Designed for non-physics majors. Prerequisite: Ph. 251.

Ph. 254: History of Physics 3 s.h.

This is a study of the important historical discoveries that helped to create modern physics as we know it today. Prerequisites: Ph. 252 or 259.

Ph. 257: Laboratory Techniques in Physics 3 s.h.

This course is designed for secondary education majors in physics. The course includes laboratory planning; selecting, care, and storage of equipment. The laboratory experiments related to the P.S.S.C. course for high school physics are stressed. Prerequisites: Ph. 252 or 259.

Ph. 258: Introductory Physics I 5 s.h.

This is an introductory physics course designed for physics majors. This course includes mechanics, heat, and sound. Mathematics 271 should be taken concurrently.

Ph. 259: Introductory Physics II 5 s.h.

This is a continuation of Ph. 258, an introductory physics course designed for physics majors. This course includes electricity, magnetism, light, and atomic physics. Mathematics 272 should be taken concurrently. Prerequisite: Ph. 258.

Ph. 351: Mechanics 4 s.h.

This is an intermediate course in mechanics of solids, liquids, and gases. Studies are made of rectilinear and circular motion, work and energy, impulse and momentum, and oscillations. Prerequisites: Ph. 252 or 259; Math. 272.

Ph. 352: Electricity and Magnetism 4 s.h.

This is an intermediate course in electricity and magnetism. Topics include electrostatics, electric field, capacitance, electric potential, current electricity, magnetism, and A.C. circuits. Prerequisites: Ph. 252 or 259; Math. 272.

Ph. 353: Atomic Physics 4 s.h.

Introduction to the fundamental concepts of atomic and nuclear physics, in terms of experimental and theoretical developments. Kinetic theory, Bohr atom, spectra, external and nuclear structure of the atom, radioactivity. Prerequisites: Ph. 252 or 259; Math. 272.

Ph. 354: Optics 4 s.h.

This is an intermediate course in geometrical and physical optics. Topics include studies of thin lenses, thick lenses, interference, diffraction, polarization, color theory, and the study of spectra. Prerequisites: Ph. 252 or 259; Math. 272.

Ph. 356: Heat**4 s.h.**

This is an intermediate course in heat. The basic concepts and principles are developed more intensively in the study of properties of gases and in thermodynamics. Some of the specific topics studied are temperature measurements, thermal expansion, specific heat, thermal conductivity of solids and liquids, thermal properties of gases, change in phase and heat engines. Prerequisites: Ph. 252 or 259; Math. 272.

Ph. 453: Physical Measurements**3 s.h.**

In this course a study is made of several instruments used in accurate measurements which play a vital role in industry, engineering, and physical science. Principles of operation and practical uses are emphasized. Some of the important instruments used in the areas of mechanics, heat, light, sound, astronomy, electricity, and atomic physics are studied. Field trips will be made to study industrial uses of instruments of measurement. Prerequisites: One of the following: Ph. 351, 352, 353, 354.

Ph. 455: Electronics**3 s.h.**

This course includes the analysis of circuits containing passive devices: resistors, capacitors, and inductors, as well as studies of active devices: vacuum tubes and transistors. The uses of these devices in communications and industry are studied. Prerequisites: Ph. 252 or 259.

Ph. 457: Demonstrations in Physics**3 s.h.**

This course is designed for the secondary education major in physics. Preparation and performance of classroom demonstrations for use in secondary schools are stressed. Prerequisites: Ph. 252 or 259.

Ph. 458: Electrical Measurements**3 s.h.**

Discussion and practice in the measurement of resistance, current, potential, inductance, capacitance, and impedance. Two lectures and one three-period lab. Prerequisite: Ph. 352.

Ph. 460: Major Concepts**3 s.h.**

This course includes some basic concepts in physics which illustrate the importance of vector algebra and differential equations in the study of physics. Prerequisites: Ph. 351, 352, 353, 354.

POLITICAL SCIENCE

P.S. 210: Introduction to Political Science**3 s.h.**

The purpose of this course is to expose the student to some of the basic and most commonly used concepts in political science as an aid toward better understanding of and advanced study in the discipline. These concepts cover the field of government and administration, comparative government, and political theory and practice.

P.S. 211: American Government**3 s.h.**

The study of the general principles of the American system of constitutional government; special emphasis is placed upon the organization and functions of the national government—legislative, executive, and judicial. The rights and duties of citizenship, the electorate, political parties, civil rights, and the growing regulatory functions of government are carefully treated.

P.S. 351: State and Local Government 3 s.h.

This course deals mainly with a detailed study of how our state and local governments function. Emphasis is placed on Pennsylvania government and the study is implemented by a field trip to Harrisburg for a more complete observation of state government at work. Field trips are made to local borough council and neighboring council meetings when available. A detailed study of the Constitution of Pennsylvania is made with emphasis on current amendments and changes. Independent study through outside projects is one of the requirements of this course.

P.S. 352: International Relations 3 s.h.

This course emphasizes the modern economics, social, political, religious, and cultural problems that reflect their influence in the relationships of the great nations of the world. Special attention is paid to the struggle of the peoples of the world to resolve their differences through international co-operation.

P.S. 353: International Organization: Theory and Practice 3 s.h.

This course is designed to afford the student an understanding of the forms and functions of the United Nations as it evolved from the League of Nations. Special reference is given to the work of the United Nations in relation to health and cultural welfare along with the more fundamental problems such as peace or war.

P.S. 354: Constitutional Law of the United States 3 s.h.

A study of the development of the Constitution through the interpretations of the Supreme Court. This includes a study of the separation of governmental powers, political and judicial processes, federalism as a legal device, and the relationship of liberty and authority to the individual living under government. Prerequisite: P.S. 211.

P.S. 355: Political Parties and Elections 3 s.h.

A survey course with emphasis on the study of the electorate, pressure groups, and public opinion, nature and history of political parties, party organization, methods of nominations, and elections. Special attention is given to the place of political parties and elections as instruments of democracy and their place in the framework of Pennsylvania's government.

P.S. 365: Ancient and Medieval Political Thought 3 s.h.

The development of political theory from Plato to Machiavelli.

P.S. 366: Modern Political Thought 3 s.h.

The development of political theory from the Renaissance humanism to the twentieth-century totalitarianism.

P.S. 375: Public Administration 3 s.h.

An introduction to the study of public administration with emphasis on its function in the American political process.

P.S. 451: Comparative Government 3 s.h.

In this course major attention is given to Great Britain and Soviet Russia as best representing, among foreign governments, the democratic and authoritarian system. Brief consideration is given to the governments of France, Italy, Germany, and Japan. Frequent comparisons and contrasts

are drawn between these governments and government in the United States.
Prerequisite: P.S. 211.

P.S. 458: English Constitutional History 3 s.h.

A consideration of constitutional government in England from the beginning of English history to the present. The study of governmental powers, political and judicial processes, and the relationships of liberty and authority to the individual living under the government is included.

PSYCHOLOGY

Psy. 211: General Psychology 3 s.h.

Study is made of the general subject matter of psychology, its methods and procedures and its major findings. Areas of particular stress include genetic inheritance, development, learning, emotions and motivation, sensation and perception, and social aspects of behavior.

NOTE: Psychology 211 is a prerequisite for all of the following courses.

Psy. 222: Educational Psychology 3 s.h.

The application of psychological principles to education is studied. In particular, the teaching-learning process is emphasized including its correlation with problems of individual differences, maturation, psychological adjustment, and evaluation and measurement.

Psy. 251: Experimental Psychology 3 s.h.

This course aims to acquaint the student with psychological experimentation, particularly in the area of psychophysics. Subjects of experimentation include sensation, perception, illusions, learning, etc. Methods of psychological investigation other than experimental are also surveyed.

Psy. 311: Mental Hygiene 3 s.h.

This course emphasizes the psychodynamics of mental health, particularly as related to the "normal" individual. Problems of personality and mechanisms of adjustment, including the origin and resolution of conflicts and the role of emotion in behavior, are studied.

Psy. 320: Human Growth and Development 5 s.h.

Acquisition of understanding and appreciation of the mental, physical, social, and emotional aspects of development. Emphasis on techniques of motivation, principles of learning, the role of individual differences, the improvement of study habits, and environmental factors affecting attitudes, personalities, growth, and intellectual interests. Directed observation of children at various grade levels, lectures, discussions, readings, and reports.

Psy. 321: Psychology of Adolescence 2 s.h.

The physical, social, psychological, and cultural bases of adolescent behavior are studied as these relate to peers, home, school, and community.

Psy. 331: Child Psychology 3 s.h.

Developmental psychology of the child from birth through pre-adolescence is studied. Topics include the interaction of heredity and environment, personality, development, parent-child relationships, teacher- and school-child

relationships, attitudes toward self and others, as well as physical, social, emotional, and intellectual development.

Psy. 332: Psychology of Exceptional Children and Youth 3 s.h.

This course introduces the student to the nature and characteristics of the blind, the deaf, the crippled, speech defectives, the mentally handicapped, the gifted, and the socially maladjusted. It aims to promote a functional understanding of the psychological implications of their behavior and its treatment as well as the guiding principles necessary to aid them in their learning processes.

Psy. 333: Child Adjustment 3 s.h.

This course is concerned with the study of the child's adjustment to his growing self and his environment. His emotional needs, the relationship of personal and environmental factors, his mode of adjustment, and the roles of parents, teachers, and special agencies in facilitating his adjustment are considered. Use is made of case histories, directed observations, and project work in developing techniques useful to the teacher in improving the latter's skill in working with children.

Psy. 354: Abnormal Psychology 3 s.h.

A survey is made in this course of the principal forms of the behavior disorders with emphasis on their etiology, diagnosis, prognosis, and treatment.

Psy. 355: Social Psychology 3 s.h.

Study is made in this course of the interpersonal relations of man and how these are affected by society's norms and values.

Psy. 356: Systematic Psychology 3 s.h.

In this course the major theoretical systems of modern psychology are examined and critically evaluated.

Psy. 451: Quantitative Methods in Psychology and Education 3 s.h.

Statistical theory is introduced in order to acquaint the student with the why, when, and how of various statistical treatments of psychological and educational data.

Psy. 452: Physiological Psychology 3 s.h.

Examination is made in this course of the basic physiological mechanisms underlying behavior with special emphasis upon the functions of the nervous and endocrine systems as these relate to sensation, perception, emotion, and learning.

Psy. 453: Industrial Psychology 3 s.h.

Study is made in this course of personality factors and individual differences in relation to success in business and industry. The psychological principles involved in advertising, selling, personnel problems, mental and physical efficiency, intelligence, motivation, fatigue, and the environmental setting are among those analyzed.

Psy. 454: Personality 3 s.h.

Systematic study is made of the development, dynamics, and structure of the self-system together with a critical comparison of the major theories of personality.

Psy. 455: Psychology of Learning 3 s.h.

A critical survey is made of the outstanding attempts to understand and explain the nature of the learning process. Emphasis will be placed on a comparison of current theories and their implications when applied to forms of learning from the simple to the complex.

Psy. 456: Introduction to Psychological Testing 3 s.h.

Consideration is given in this course to the better known psychometric instruments, the theories underlying their construction and use, their administration, and how results are scored, interpreted, and analyzed.

Psy. 458: Sensation and Perception 3 s.h.

The perceptual-sensory processes will be studied with a view to understanding their structural properties and their role in the psychological functioning of man. Each student will be involved in a research project and will be expected to prepare a detailed report of his findings.

Psy. 464: Introduction to Clinical Psychology

Basic methods and techniques in clinical psychology are critically examined and evaluated.

Prerequisites: Psy. 251, 354, and 456.

Psy. 465: Research Seminar 3 s.h.

This course affords students the opportunity to continue the study of research techniques. Each student, with the approval of the instructor, will undertake a research project in the area of his choice. The work will culminate in a paper of distinguished quality. Enrollment is limited to Psychology majors who have distinguished themselves in previous departmental courses.

Prerequisites: Psy. 251, 451, and 455 or 458 and permission of the instructor.

RUSSIAN

Russ. 151: Russian I (Elementary I) 4 s.h.

Essentials of grammar, inductively presented. Emphasis on aural comprehension and oral expression, with extensive use of the language laboratory. Students may not receive credit for this course until Russian 152 has been successfully completed. Exceptions may be made for seniors and transfers upon the recommendation of the Department Head.

Russ. 152: Russian II (Elementary II) 4 s.h.

Continuation of Russian 151, with increasing emphasis on graded reading material. Prerequisite: Russian 151 or permission of the instructor.

Russ. 251: Russian III (Intermediate I) 3 s.h.

Brief systematic review of basic grammar; graded readings, conversation and composition on everyday topics. Prerequisites: Russian 152 or two years of high school study and/or a satisfactory placement test score.

Russ. 252: Russian IV (Intermediate II) 3 s.h.

Intensive reading of selected short stories and/or other works; outside reading, with oral and/or written reports. Prerequisites: Russian 251 or three years of high school study and/or a satisfactory placement test score.

Russ. 253: Scientific Russian**2 s.h.**

A study of scientific terminology and style, with extensive readings in various scientific fields. Prerequisite: Russian 251 or equivalent. Science and mathematics majors may substitute this course for Russian 252.

Russ. 255: Russian Civilization I**3 s.h.**

A survey of the geography, history, literature, and culture of the Soviet Union, designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful, and integral part of a great civilization. Prerequisites: Russian 252 or four years of high school study and/or a satisfactory placement test score.

Russ. 256: Russian Civilization II**3 s.h.**

Continuation of Russian 255.

Russ. 351: Advanced Grammar and Composition**3 s.h.**

Intensive oral and written drill, with emphasis on finer points of grammar, and colloquial and idiomatic usage. English-to-Russian translation, free composition, and conversation on everyday topics.

Russ. 353: The Russian Drama**3 s.h.**

Dramatic works of the 19th and 20th centuries, with special emphasis on the works of Anton Chekhov.

Russ. 354: The Russian Novel**3 s.h.**

The great Russian novelists of the 19th Century: Gogol, Turgenev, Dostoevsky, and Tolstoy.

Russ. 355: Readings in Soviet Russian Literature**3 s.h.**

A survey of Russian literature since the Revolution of 1917.

Russ. 361; Dostoevsky**3 s.h.**

A study of the life and works of Dostoevsky, with emphasis on his great novels: *Crime and Punishment*, *The Idiot*, *The Possessed*, and *The Brothers Karamazov*.

Russ. 451: Supervised Readings in Russian Literature**3 s.h.**

The course is devoted to selected readings determined in relation to the needs and interests of the individual major.

SAFETY EDUCATION

SE 211: General Safety Education**3 s.h.**

The development of habits and attitudes that will make for safe living by both teachers and students. Acquaintance with 1. Rules, regulations, and laws concerning the operation of motor vehicles; 2. Rules and regulations of pedestrian travel; 3. Other hazards to which we are commonly subjected, such as fire, electricity, etc., especially in the home and school.

SE 212: Organization and Administration of Safety Education**3 s.h.**

A consideration of procedures and problems related to the organization and administration of safety education in the public school.

**SE 213: Methods and Materials for Teaching Safety in the
Secondary Schools****3 s.h.**

The study of evaluative techniques, content, methods, and teaching aids in the program of safety education in the secondary schools.

SE 214: Psychology of Accident Prevention**3 s.h.**

Relates the achievement of behavior consistent with safe living to the psychological factors and techniques essential in the learning process. A review of the literature and experimentation relative to proneness to accidents, effect of alcohol on drivers, reaction times, etc.

SE 215: Visual and Other Aids in Safety Education**3 s.h.**

Evaluation and use of posters, charts, radio, projectors, and special aids in the teaching of safety education.

SE 351: Driver Education and Traffic Safety**3 s.h.**

Classroom instruction combined with road training and the teaching of driving to beginners using dual control cars. Emphasis is placed upon the essential facts, principles, skills, and attitudes necessary for good driving and the teaching of same to beginning drivers. Ability to use and interpret the results of psycho-physical testing is required.

SCIENCE

Ph. Sci. 111: Basic Physical Science I**3 s.h.**

The purpose of this course is to introduce the student to the scientific view of the physical world by selecting specific units from the fields of physics and chemistry. Topics covered in this course include systems of measurement, fundamentals of electricity and magnetism, and selected topics in chemistry emphasizing modern atomic theory, descriptive chemistry of the elements, and basic reactions illustrating principal laws of chemistry.

Ph. Sci. 112: Basic Physical Science II**3 s.h.**

This course is a continuation of Physical Science 111. A major unit on astronomy and space science is presented, including principles of light relating to the understanding of astronomical instruments. Additional topics covered in the course are heat and simple mechanics. Prerequisite: Ph. Sci. 111 or permission of department chairman.

Sci. 222: Teaching of Elementary Science**2 s.h.**

Methods of presenting science in the elementary school. Attention is given to the scope and sequence of concepts and activities. Emphasis is placed on the physical sciences in developing and teaching lessons. Also stressed are evaluations of elementary science reading materials; texts and supplementary books; collections of resource materials; development of attitudes; and techniques of problem solving.

Sci. 231: Fused Science**2 s.h.**

This course, following the year of basic sciences, is designed to provide the prospective teacher with a more adequate background in the science of living things. To achieve this purpose units are selected which examine the natural history of our most familiar forms of life. The units covered are Woody Plants, Insects, Fishes, Amphibians, Reptiles, and Mammals. Empha-

sis is placed upon developing resourcefulness in gathering data and using the scientific method in the solution of problems.

SOCIOLOGY

Soc. 211: Principles of Sociology

3 s.h.

This is a basic course in sociology dealing with the interaction arising from the association of human beings. Emphasis is placed upon natural and social heritage; the meaning and functions of culture; and the origin, function, and characteristics of social institutions such as the family, religion, and the state, with inquiry into the nature and genesis of pathology.

Soc. 351: Contemporary Social Problems

3 s.h.

This course deals with problems which seem to interfere with the proper functioning of our society as a whole. Such problems as divorce, alcoholism, the industrial worker, the mentally deficient, the small town, crime and the community, and many others are attacked and discussed. Individual research by means of projects is assigned and requires extensive reading in the field. Visits are made whenever possible to places where social problems are prevalent. The student should have had Soc. 211 as a background for this course.

Soc. 352: Home and Family Living—The Family

3 s.h.

This course deals with the development of the family and the home in its historical, economic, and legal aspects. The various factors influencing the organization, disorganization, and reorganization of the family are considered, as well as the modern trends in this basic institution.

Soc. 361: Sociology of Deviant Behavior

3 s.h.

This course deals with behavior which is considered to be in violation of the moral norms and enacted laws of a society. Some attention is devoted to the ways in which different societies define and treat such deviations and distinguish between undesirable or delinquent behavior and criminal behavior. Major emphasis is given to crime and juvenile delinquency; to the theories of the causes, treatment, and control of crime; and to correctional methods and administration of justice. Prerequisite: Soc. 211.

Soc. 362: Racial and Ethnic Minority Problems

3 s.h.

Background of racial and ethnic minority group relations in different ages and societies. Theories and scientific inquiries by sociologists, anthropologists, and psychologists related to racial and ethnic groups. Contemporary aspects of inter-ethnic and inter-racial group problems. Proposals for alleviating and resolving problems, and their implications for major social institutions such as education, the economy, and government. Prerequisite: Psy. 211.

Soc. 363: Urban Sociology

Study of urban communities, their composition, structure and development in relation to other types of communities. The growth of mass urban society, population shifts and trends, and their implications to basic social institutions such as education, the family and the economy. Special emphasis upon contemporary urban problems and proposals of urban planners and community developers to meet them. Prerequisite: Sociology 211.

SPANISH

In addition to the courses listed below, students of Spanish have an opportunity to study for a summer, a term, or an entire academic year in Spain and/or Mexico.

Span. 151: Spanish I (Elementary I) 4 s.h.

Essentials of grammar, inductively presented. Emphasis on aural comprehension and oral expression, with extensive use of the language laboratory. Students may not receive credit for this course until Spanish 152 has been successfully completed. Exceptions may be made for seniors and transfers upon the recommendation of the Department Head.

Span. 152: Spanish II (Elementary II) 4 s.h.

Continuation of Spanish 151, with increasing emphasis on graded reading material. Prerequisites: Spanish 151 or permission of the instructor.

Span. 153: Elementary Spanish Conversation 3 s.h.

Conversational practice, with extensive oral drill of grammatical patterns. Designed for those students who have met the prerequisites for Spanish 251 but are lacking in aural-oral proficiency. May be taken concurrently with Spanish 251.

Span. 251: Spanish III (Intermediate I) 3 s.h.

Brief systematic review of basic grammar; graded readings, conversation and composition on everyday topics. Prerequisites: Spanish 152 or two years of high school study and/or a satisfactory placement test score.

Span. 252: Spanish IV (Intermediate II) 3 s.h.

Intensive reading of selected short stories and/or other works; outside reading, with oral and/or written reports. Prerequisites: Spanish 251 or three years of high school study and/or a satisfactory placement test score.

Span. 253: Commercial Spanish 3 s.h.

A study of commercial terminology and style, with extensive practice in the writing of business letters of various kinds. Prerequisite: Spanish 251 or equivalent. Economics and business administration majors may substitute this course for Spanish 252.

Span. 255: Hispanic Civilization I 3 s.h.

A survey of Hispanic geography, history, literature, and culture designed to equip teachers with the materials and understanding necessary to the presentation of the language as a rich, meaningful and integral part of a great civilization. Prerequisites: Spanish 252 or four years of high school study and/or a satisfactory placement test score.

Span. 256: Hispanic Civilization II 3 s.h.

Continuation of Spanish 255, which is, however, not prerequisite. These two courses are required of all majors.

Span. 351: Advanced Spanish Grammar and Composition 3 s.h.

Intensive written drill, with emphasis on finer points of grammar, colloquial, and idiomatic usage, English-to-Spanish translation and free com-

position on everyday topics. Prerequisites: Spanish 255 and 256 or a literature course.

Span. 352: Introduction to Spanish Literature 3 s.h.

Study and discussion of the main trends of Spanish thought and literary expression. Emphasis is placed on the development of the novel and drama during the Golden Age.

Span. 353: The Modern Spanish Drama 3 s.h.

A study of the modern theater in Spain, with emphasis on Benavente, García Lorca, Casona, Buero Vallejo, and López Rubio.

Span. 354: The Modern Spanish Novel 3 s.h.

The development of the novel in Spain during the 19th and 20th centuries, with emphasis upon the discussion of realism, regionalism, and naturalism.

Span. 355: The "Generation of 1898" 3 s.h.

Discussion of the principal authors of this group and their influence on 20th century Spanish thought, with an analysis of the role played by historical events in the development of the movement.

Span. 359: The Literature of the Golden Age 3 s.h.

A survey of the greatest period of Spanish literature, with selected readings from Cervantes' *Don Quixote* and the plays of Lope de Vega, Tirso de Molina, Calderón, and Ruiz de Alarcón.

Span. 360: Survey of Spanish-American Literature 3 s.h.

Study and discussion of the evolution of Spanish-American literary expression from the colonial period to the Twentieth Century.

Span. 361: The History of Mexican Literature 3 s.h.

The history of Spanish literature in Mexico from the Conquest to the present, with special emphasis on Lizardi, Altamirano, the novelists of the Revolution, and selected contemporary writers.

Span. 362: Advanced Composition and Conversation 3 s.h.

Intensive oral and written drill, with emphasis on colloquial and idiomatic usage. Prerequisite: Spanish 351.

Span. 451: Supervised Readings in Hispanic Literature 3 s.h.

The course is devoted to selected readings determined in relation to the needs and interests of the individual major.

SPECIAL EDUCATION

Spec.Ed. 111: Education of Exceptional Children 3 s.h.

The course is a study of the causes, characteristics, and implications—educational, social, and vocational—of children who are exceptional because of intelligence, physical development, behavior, vision, hearing, and speech. It also acquaints prospective professional personnel with vocational opportunities in Special Education and Rehabilitation.

Spec.Ed. 221: Neurological Impairment 3 s.h.

The etiology and characteristics of cerebral palsy, aphasia, cerebral dysrhythmia, Strauss Syndrome and various other anomalies of the central nervous system are studied and observed in the clinic and classroom with concern for the current diagnostic, educational, and rehabilitation implications.

Spec.Ed. 220: Nature of Mental Retardation 3 s.h.

This is a comprehensive study of the biological, psychosocial, and educational implications of retarded mental development, including a consideration of etiology; assessment, and diagnosis; educational programs, including pre-school and post-school; adult social and vocational adjustment; national and local programs; and research. Prerequisite: Spec.Ed. 111.

**Spec.Ed. 321: Curriculum Development for Exceptional Children
(Mentally Retarded)** 3 s.h.

This is a study of the educational objectives for children with retarded mental development and the nature of curricula designed to satisfy these objectives; application of the fundamentals of curriculum construction; analysis and evaluation of representative curricula at elementary and secondary levels by study and observation; survey of materials and equipment to implement the curriculum. Prerequisite: Spec.Ed. 220.

Spec.Ed. 322: Educational Appraisal in Mental Retardation 3 s.h.

This course involves study, observation, and directed practice with the applied diagnostic and appraisal techniques appropriate to the education of mentally retarded children. It includes theory of testing; the examination of elementary statistical concepts as they facilitate selection, administration, scoring and interpretation of standardized tests; and the construction of teacher-made instruments as specifically applied to the mentally retarded child. Prerequisite: Spec.Ed. 220.

**Spec.Ed. 422: Methods of Teaching Exceptional Children
(Mentally Retarded)** 3 s.h.

This course provides for the analysis of the teaching-learning process—the teacher, the learners, and their interaction. Particular teaching strategies for meeting the unique needs of educable mentally retarded pupils as individual learners are considered and implemented. Prerequisite: Spec.Ed. 220.

**Spec.Ed. 423: Curriculum Materials for Exceptional Children
(Mentally Retarded)** 3 s.h.

This course considers contemporary curricular innovations in educational programs for educable mentally retarded children and youth, with particular attention to the sociocultural implications of changing curricular practices and the new instructional media and technology. Prerequisite: Spec.Ed. 321.

**Spec.Ed. 424: Laboratory Methods with Exceptional Children
(Mentally Retarded)**

This course is designed to expand the understanding of the teaching-learning process by observation and application, focusing upon the development of advanced skills in the analysis of teacher behaviors, learner behaviors, classroom interaction and their implications. Prerequisite: Spec.Ed. 422.

Spec.Ed. 429: Student Teaching (Mentally Retarded) 6 s.h. or 12 s.h.

Observation and participation in teaching children with retarded mental development and in activities related to the performance of a teacher's work.

SPEECH**Sp. 010: Remedial Speech 0 s.h.**

Speech Clinic—diagnostic and remedial program for the speech handicapped.

This service is made available to the students regularly enrolled at the college. College students who need help are encouraged to seek the help of the clinic. Every effort is made to help students remove deficiencies which would interfere with their successful progress in college. Students referred to the Director of the Speech Clinic must officially enroll through the office of the registrar for this non-credit course.

Sp. 113: Fundamentals of Speech 3 s.h.

Study and application of the fundamental principles of effective speaking; training in selection, organization, and development of materials suitable for speeches; analysis of voice; personality adjustment as related to speaking-listening situations; patterns for analysis of an audience; prior analysis, cybernetic analysis, and post analysis; techniques of group dynamics and role playing.

Sp. 114: Advanced Public Speaking 2 s.h.

Inquiry into and practice in the principles of effective public speaking. Detailed analysis of the areas of invention, arrangement, style, and delivery, and an introduction to speech criticism as a tool to improve the speaker's own abilities. Prerequisite: Speech 113.

Sp. 115: Parliamentary Procedure 1 s.h.

A study of the principles and applications of the standard parliamentary rules used in conducting formal meetings of social, civic, and political bodies.

Sp. 251: Voice and Diction 3 s.h.

The objective of this course is to help students improve their speech by the elimination of faulty voice and articulation habits. Attention is given to such basic skills as volume, pitch, resonance, rate, phrasing, pronunciation and articulation. Tape recordings are used as a helpful device for analyzing problems and noting progress. Prerequisite: Speech 113.

Sp. 252: Introduction to Speech Correction 3 s.h.

Designed to train prospective teachers to care for defective speech in the classroom and to make educators and society cognizant of the increasing need for a definite speech education program in our public schools. A study of speech sound, speech mechanisms, symptoms, causes, and treatment of minor speech, voice, and hearing disorders. Prerequisite: Speech 113.

Sp. 253: Introduction to the Theatre 3 s.h.

Survey of plays, theatre practice, and production from Aeschylus to Miller. Theory and criticism.

Sp. 254: Principles of Acting I 3 s.h.

Principles and techniques of movement, stage direction, pantomimic dramatization, characterization development, and interpretation through improvisations and playing roles in scenes from contemporary dramas.

Sp. 255: Stagecraft and Lighting 3 s.h.

Study and practice in scene construction, scene painting, theatre equipment, the basic technical elements of stage electricity, and instrumentation operation and selection.

Sp. 256: Argumentation and Debate 3 s.h.

Principles of reasoned discourse and their application to controversial issues.

Sp. 257: Advanced Debate 2 s.h.

Further experience in competitive debating and in a variety of debating forms is provided. Prerequisite: Consent of instructor.

Sp. 264: Discussion 2 s.h.

Designed to develop the attitudes, skills, and knowledge of methods favorable to effective participation and leadership in discussion by conferences, committees, and other small groups.

Sp. 311: Persuasion 3 s.h.

Study and practice in persuasive speaking. General theories of persuasion, the role of persuasion in a democratic society, and an introduction to modern experimental research in the area included.

Sp. 312: General Semantics 3 s.h.

An investigation of the relationship between words and the realities they represent. Special emphasis will be given to an understanding of personal, political, and international problems that arise due to semantic breakdowns in the communication process. Public Address concentrates may substitute this course for Sp. 311, 411, 412, or 451.

Sp. 350: Summer Drama Workshop 6 s.h.

The summer drama workshop combines study and practice in the dramatic arts and includes formal, intensive study in acting, play production, direction, makeup, scene design, stage lighting, and stagecraft. In conjunction with the workshop, Clarion State College sponsors a Summer Theatre Company consisting of members of the workshop and produces three major productions.

Sp. 351: Advanced Theater Production 6 s.h.

Advanced study and practice in the dramatic arts, including projects in scene design, theater management, and acting. Students will work with members of the Summer Drama Workshop in the production of three major plays for the Clarion Summer Theater. Prerequisite: Sp. 350.

Sp. 352: Play Directing 3 s.h.

A study of the fundamentals and procedures of play directing and problems faced in educational theater, including analysis of the script, methods of casting, and rehearsal. Students direct one-act plays for public presentation.

Sp. 354: Oral Interpretation**3 s.h.**

The course emphasizes the understanding and appreciation of literature through developing skill in reading aloud. Help is given in selecting, adapting, and preparing literature for presentation. Special attention is given to reading materials required of the classroom teacher. Prerequisite: Speech 113.

Sp. 358: Psychology of Speech**3 s.h.**

This course aims to investigate the several theories of speech origin; study the neurological and psychological bases of speech; trace the ontogeny of speech and language; study speech as an aspect of personality structure; and investigate certain speaker-audience phenomena. The psychology of stuttering is given special consideration. Prerequisite: Sp. 252.

Sp. 359: History of the Theater**3 s.h.**

History of plays and playwrights, theater architecture, scene design, costume and methods of acting and directing from the fifth century B.C. to the present.

Sp. 361: Principles of Acting II**3 s.h.**

A study of period styles of acting, speech, and movement which includes the Classic Shakespearean, Commedia, Restoration, Romantic, and Early American Periods.

Sp. 362: Principles of Stage Design**3 s.h.**

Study and practice in the aesthetics, methods, and techniques of setting and lighting design for the theater and adaptation to television. Covers both period and contemporary analysis.

Sp. 363: Theatrical Costume and Make-up**3 s.h.**

A historical survey of civil costume, techniques of costume construction, and fundamentals of stage make-up.

Sp. 411: Classical Rhetoric**3 s.h.**

Study of the rhetorical theories of the ancient Greeks and Romans and their historical context. Includes the work of Plato, Aristotle, Cicero, Quintilian, and St. Augustine. For juniors and seniors.

Sp. 412: British Public Address**3 s.h.**

Study of the rise of public speaking in Great Britain, and its influence on the course of history in that democracy, both in and out of Parliament. Includes the study of the speaking of Lord Chatham, Burke, Fox, Pitt, Sheridan, Gladstone, Disraeli, and Churchill. For juniors and seniors.

Sp. 451: Advanced Speech**3 s.h.**

A seminar in methods of investigation and research in the field of speech. Published articles and books of a scholarly nature are analyzed and critically evaluated. Each student selects a topic for intensive study. The course culminates in a written research project. Prerequisite: Open only to juniors and seniors with approval of department chairman.

Sp. 453: Applied Phonetics**3 s.h.**

An analysis of the speech sound used in English so that the student develops auditory acuity and correct reproduction of sounds; transcripts of spoken material using I.P.A. system; comparison of phonetic alphabet and

diacritical marking system; study of structure and function of speech organs; voice improvement; applied phonetics for speech correction.

Sp. 454: Radio and Television

3 s.h.

Lecture and workshop in the use of radio and television as media of instruction in the classroom. Participation in the planning, writing, and producing of radio broadcasts and telecasts of an educational nature. Field work in production whenever possible. Meets 5 hours per week.

Sp. 455: Creative Dramatics

3 s.h.

A study of the techniques and theory of playmaking. Study of dramatic activities for children including story telling, story dramatization, rhythms, and pantomime. Designed for the elementary teacher.

Sp. 465: Advanced Oral Interpretation

2 s.h.

Inquiry into the advanced techniques of the oral interpretation of prose, poetry and drama. Emphasis on programming and direction of oral interpretative programs. Prerequisite: Speech 354.

SPEECH PATHOLOGY AND AUDIOLOGY

SPA 231: Hearing Problems

3 s.h.

The nature of hearing disorders and the medical, social, psychological, and educational implications are investigated, with attention focused upon the roles of parents, specialists, and educators toward the rehabilitative process. Analysis and practice in the techniques of speech and audiometric evaluation are provided.

SPA 232: Clinical Phonetics

3 s.h.

Introduction to the science of English sounds. Consideration of phonetical applications to matters of speech correction and improvement.

SPA 233: Anatomy of Speech and Hearing Mechanisms

3 s.h.

Study of the anatomy and physiology of the speech and hearing mechanisms.

SPA 253: Speech Problems

3 s.h.

This course is the first half of a sequence in Speech Pathology. Emphasis will be placed on the description, diagnosis, and treatment of articulation disorders, language development, problems, tongue thrust, and cleft palate. Basic linguistic, psychological, and statistical concepts necessary in the study of clinical speech are also included.

SPA 331: Speech and Hearing Clinic I: Practicum

3 s.h.

Supervised clinical observation and practice in case study and conferences, diagnostic evaluations, remedial procedures, parent conferences, and reporting. The application of theory in the development of clinical skills with individuals and small groups of children and adults, for a minimum of 135 clock hours. Prerequisite: SPA 231.

SPA 332: Speech and Hearing Clinic II: Advanced Practicum

3 s.h.

Supervised clinical observation and practice in case study and differential diagnosis, therapy with complex speech and hearing disorders,

parent conferences, and reporting. Both individual and group techniques are emphasized with children and adults, for a minimum of 135 clock hours. Prerequisite: SPA 331.

SPA 333: Curriculum Materials for Speech Correction 3 s.h.

Teaching techniques, source materials, visual aids, and special problems to be employed in speech practice and correction.

SPA 334: Speech Correction for the Classroom Teacher 3 s.h.

Designed to acquaint students with speech problems common to children on the elementary level. Emphasis is placed on the study of materials, methods, and techniques used by the classroom teacher in improving the speech of all children.

SPA 356: Speech Pathology 3 s.h.

This course is the second half of a sequence in Speech Pathology. The major emphasis will be placed on the description, diagnosis, and treatment of cerebral palsy, voice disorders, aphasia, and stuttering. A basic approach to the psychodynamics of the speech therapy process is also included.

SPA 421: Speech Reading and Auditory Training 3 s.h.

A comprehensive study of specialized techniques, with emphasis upon auditory training, speech reading, and speech retraining. This includes evaluation and utilization of special equipment and materials—visual, acoustical, and kinaesthetic. Prerequisite: SPA 231.

SPA 422: Student Teaching with the Speech and Hearing Handicapped 6 or 12 s.h.

Observation of and participation in teaching and activities related to the performance of the itinerant speech and hearing teacher's work.

SPA 432: Audiology 3 s.h.

A continuation of SPA 231: Hearing Problems.

ENROLLMENT AT CLARION STATE COLLEGE

Student enrollment has risen from 764 in September, 1958, to 2900 in September, 1967, making Clarion one of the fastest growing colleges in Pennsylvania. The present enrollment of 2900 is almost equally divided between men and women and is drawn from forty-four counties of the Commonwealth. Each year the number of students from states other than Pennsylvania increases and there is a small but encouraging representation from foreign countries.

An analysis of the enrollment in September, 1966, showed the following counties contributing substantial numbers of students to Clarion.

Allegheny	745	Indiana	15
Armstrong	84	Jefferson	81
Beaver	117	Lawrence	47
Blair	20	McKean	30
Bucks	15	Mercer	48
Butler	74	Montgomery	10
Cambria	81	Potter	11
Centre	10	Somerset	55
Clarion	264	Venango	159
Clearfield	64	Warren	21
Crawford	33	Washington	59
Elk	42	Westmoreland	264
Erie	39		

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Research
George Washington University, B.S.; M.A.; Ed.D.
- John A. Laswick, Ph.D., Professor, Chemistry
University of Colorado, B.A.; Cornell University, Ph.D.
- Donald E. Leas, M.S., Associate Professor, Director of Health, Physical
Education and Recreation
Michigan State University, B.S.; Southern Illinois University, M.S.; Ad-
ditional graduate work, University of Illinois, Pennsylvania State University.
- George R. Lewis, Ed.D., Professor, Director of Computer Center
East Stroudsburg State College, B.S.; University of Pittsburgh, M.Litt.;
Graduate work at Bucknell University; Pennsylvania State University, Ed.D.
- Frank Lignelli, M.Ed., Associate Professor, Director of Athletics
Clarion State College, B.S.; University of Pittsburgh, M.Ed.; Additional
graduate work at Pennsylvania State University.
- Irving Lilly, Ph.D., Professor, Psychology
Temple University, B.S., M.A., Ph.D.
- Kenneth J. Linton, Ph.D., Associate Professor, Biology
Michigan State University, B.S., M.S., Ph.D.
- Earl N. Lockard, Ph.D., Professor, English
University of Illinois, A.B., A.M.; University of Chicago, Ph.D.
- Walter E. Lockhart, M.A., Instructor, Philosophy
Gordon College, B.A.; Boston University, M.A.; Doctoral candidate at Boston
University.

- John G. Mager, M.L.S., Associate Professor, Librarian
Concordia Seminary, B.A., B.D., S.T.M.; Washington University, M.A.;
University of California, M.L.S.; Additional work at Oakland City College,
Akron University, Western Reserve University, University of Chicago.
- Charles L. Marlin, Ph.D., Associate Professor, Speech
University of Missouri, B.S.Ed.; Indiana University, M.A., Ph.D.
- Thomas B. Martin, Ed.D., Professor, Director of Financial Aid
Northeast Missouri State Teachers College, B.S.; University of Tennessee,
M.S.; Indiana University, Ed.D.
- Allene H. Masterson, M.Litt., Associate Professor, French and Spanish
Geneva College, B.A.; University of Pittsburgh, M.Litt.; Additional graduate
work at the University of Pittsburgh and Duke University.
- Garrison A. McCaslin, M.Ed., Instructor, Biological and Physical
Science
Lock Haven State College, B.A.; Pennsylvania State University, M.Ed.
- William A. McCauley, Ph.D., Professor, Psychology, Dean of Graduate
Studies
State College, Geneseo, N.Y., B.Ed.; Colorado State, M.A.; Syracuse U.,
Ph.D.
- James E. McDaniel, A.M.L.S., Assistant Professor, Librarian
Eastern Michigan University, B.A., M.A.Ed.; University of Michigan,
A.M.L.S.
- William M. McDonald, M.A., Associate Professor, Music, Director of
Choirs
Indiana University of Pennsylvania, B.S.; New York University, M.A.;
Doctoral candidate, West Virginia University.
- Nancy S. McKee, M.L.S., Assistant Professor, Librarian
Wilson College, A.B.; Carnegie Institute of Technology, M.L.S.
- John D. McLain, Ed.D., Professor, Director, Center for Educational
Research
Southern Oregon College, B.S.; University of Oregon, M.Ed, Ed.D.
- Kenneth R. Mechling, M.A., Associate Professor of Biology
Indiana University of Pennsylvania, B.A., M.A.; Additional graduate work,
Northern Illinois University, University of Pittsburgh, Doctoral candidate,
Michigan State University.
- Willard M. Mecklenburg, M.S., Instructor, English, Director of Public
Information
Hamline University, B.A.; Garrett Biblical Institute, B.D.; Northwestern
University, M.S.
- John Mellon, Ph.D., Professor, Dean of Liberal Arts
Clarion State College, B.S.; University of Pittsburgh, M.Litt., Ph.D.; Ad-
ditional graduate work at the University of Colorado and the Pennsylvania
State University.
- Stoyan M. Menton, M.A., Associate Professor, Sociology
Wayne State University, B.A., M.A.; Additional graduate work at University
of London, Michigan State University, University of Wisconsin.
- Richard M. Metcalf, Ed.D., Associate Professor, Audio-Visual Com-
munications
Illinois State University, B.S., M.S.; Indiana University, Ed.D.

- James Metress, M.A., Assistant Professor of Anthropology
University of Notre Dame, B.S.; Columbia University, M.A.; Additional graduate work, Ohio Wesleyan University, Western Michigan University, Indiana University, Purdue University.
- Stanley F. Michalski, Jr., Ed.D., Associate Professor, Music, Director of College Bands
Pennsylvania State University, B.S., M.Ed., Ed.D.; Additional study at Wyoming Seminary, University of Pittsburgh.
- J. Rex Mitchell, M.E.M., Assistant Professor of Music
Muskingum College, B.S.; Kent State University, M.E.M.; Additional graduate work at the University of Michigan.
- Melvin A. Mitchell, M.Ed., Assistant Professor, Mathematics
Indiana University of Pennsylvania, B.S., M.Ed.; Additional graduate work, Pennsylvania State University.
- Calvin W. Moats, M.Ed., Assistant Professor, Geography, Physical Science
California State College, B.S.; University of North Carolina, M.Ed.; Additional work at Ohio State University.
- Lester D. Moody, Ph.D., Professor, Head of English Department
Washington State University, B.A.; University of Washington, M.A., Ph.D.
- Elaine E. Moore, M.L.S., Instructor-Librarian
Clarion State College, B.S.; University of Pittsburgh, M.L.S.
- Eleanor D. Moore, M.S.L.S., Associate Professor, Library Science
Clarion State College, B.S.; Additional work at Allegheny College; University of Pittsburgh, M.Ed.; School of Library Service, Columbia University, M.S.L.S.
- James D. Moore, Ed.M., Professor, Dean of Academic Affairs
Muskingum College, A.B.; University of Pittsburgh, M.Ed.
- J. Robert Moore, Ph.D., Associate Professor, Biology
Clarion State College, B.S.; University of Pittsburgh, M.S., Ph.D.
- John N. Moorhouse, M.Ed., Associate Professor, Education
California State College, B.S.; University of Pittsburgh, M.Ed.; Additional graduate study at University of Pittsburgh and University of Utah. Doctoral candidate, Pennsylvania State University.
- Russell L. V. Morgan, Ed.D., Professor, Administrative Head of Venango Campus
Slippery Rock State College, B.S.; University of Pittsburgh, M.Ed., Ed.D.; Additional work at Allegheny College and Carnegie Institute of Technology.
- W. Lee Morrison, Ed.D., Associate Professor, Psychology
Nebraska State Teachers College, B.S.; University of Denver, M.A., Ed.D.
- Elbert R. Moses, Jr., Ph.D., Professor, Head of Speech Department
University of Pittsburgh, A.B.; University of Michigan, M.S., Ph.D.; Additional graduate work at Eastern Illinois State University, Northwestern University School of Speech.
- Paul R. Mosser, M.A., Associate Professor, Education
Kutztown State College, B.S.; Lehigh University, M.A.; Additional graduate work, Rutgers University.
- John S. Mulka, M.Ed., Instructor-Resident Director
Bloomsburg State College, B.S.; Ohio University, M.Ed.

- Gilbert Neiman, Ph.D., Professor, English
Regis College; University of Colorado, B.A.; University of New Mexico, M.A., Ph.D.
- Max A. Nemmer, Ph.D., Professor, English
University of Pittsburgh, B.A., M.L., Ph.D.
- Henry W. Newman, M.A., Associate Professor, English
Sampson College; Syracuse University, B.A.; University of Pennsylvania, M.A.; Additional graduate work at Temple University and State University of New York at Buffalo.
- Robert L. Northey, M.A., Assistant Professor, Mathematics
Clarion State College, B.S.; Rutgers University, M.A.; Additional graduate study, Rutgers University, Pennsylvania State University, San Jose State College.
- Joseph C. Nucci, M.Litt., Associate Professor, English
University of Notre Dame, A.B.; University of Pittsburgh, M.Litt.; Additional graduate work, University of Pittsburgh.
- Lester C. Oakes, M.S., Associate Professor, Geography
Teachers College of Connecticut, B.Ed.; New York University, M.A.; Union College, M.S.; Teachers College, Columbia University, Professional Diploma; Additional graduate work, University of Pittsburgh.
- Galen L. Ober, M.Ed., Assistant Professor, Physical Science
Indiana State College, B.A.; University of Pittsburgh, M.Ed.; Additional graduate work at University of Wisconsin, Oregon State, Georgia Institute of Technology.
- Michel G. Ossesia, Ph.D., Professor, Head of Mathematics Department
University of Pittsburgh, B.S., M.Litt., Ph.D.
- Donald R. Pagano, M.S., Assistant Professor, Mathematics
Duquesne University, B.S.; Syracuse University, M.S.; Additional graduate work at University of Pittsburgh.
- William J. Page, Ed.D., Professor, Director of Student Teaching and Placement
Fredonia State Teachers College; Temple University, B.S., M.Ed., Ed.D.
- Frank A. Palaggo, M.Ed., Associate Professor, Education
Clarion State College, B.S.; Pennsylvania State University, M.Ed.; Additional graduate work at Pennsylvania State University.
- Hugh Winston Park, Ph.D., Professor, English
Hiram College, B.A.; Western Reserve University, M.A.; University of Utah, Ph.D.
- Charles G. Pearce, M.Ed., Assistant Professor, Art
Indiana State College, B.S.; Pennsylvania State University, M.Ed.; Additional graduate study Pennsylvania State University.
- Donald D. Peirce, Ph.D., Professor, Head of Physical Science Department
Oberlin College, A.B.; Attended Clarion State Normal School; Graduate work at University of Pittsburgh, Pennsylvania State University; University of Illinois, M.A., Ph.D.
- Lawrence L. Penny, Ed.D., Professor, Psychology
Oklahoma State University, B.S. in Ed., M.S.; Kansas University, Ed.D.
- Anette Roussel-Pesche, M.A., Assistant Professor, Music
Carnegie Institute of Technology, B.A.; Ecole Normale de Musique de Paris, M.A.; Graduate piano studies, artist pupil of Alfred Cortot.

- Werner H. Peterke, M.A., Assistant Professor, Economics
Jamestown Community College, Cornell University, B.S.; Kent State University, M.A.; Additional graduate work, University of Illinois; Lehigh University.
- Leonard A. Pfaff, M.A., Associate Professor, Audio-Visual Education
Southwest Missouri State College, B.S.; George Peabody College, M.A.; Additional graduate work at the University of Indiana.
- Andor S. P-Jobb, M.F.A., Assistant Professor, Art
Art Academy of Budapest, Clarion State College, Kent State University, B.F.A., M.F.A.
- Suzanne P-Jobb, A.B., Instructor, Russian
Clarion State College, Kent State University, B.A.; Additional graduate work, Indiana University.
- Roxanne E. Plapp, M.A. Instructor, Speech
Carroll College, B.S., Central Missouri State College, M.A.
- Helen Poulos, M.M., Instructor, Music
Philadelphia Musical Academy, B.M., M.M.; Doctoral candidate, Indiana University.
- Morrell B. Pratt, M.Ed., Associate Professor, Spanish (Part-time)
Westminster College, B.A.; Middlebury College, M.A.; Pennsylvania State University, M.Ed.
- George W. Price, Ph.D., Assistant Professor, Audio-Visual Education
Brigham Young University, B.A.; Indiana University, M.S., Ed.S., Ph.D.
- R. A. Rashidi, M.A., Assistant Professor, Economics
University of Teheran, B.A.; University of Minnesota, M.A.; Doctoral candidate, University of Pennsylvania.
- William A. Redin, M.Ed., Associate Professor, Physical Science
Pennsylvania State University, B.S., M.Ed.; Syracuse University, M.S.; Additional graduate work, Allegheny College.
- John F. Reinhardt, M.A., Assistant Professor, English
Grove City College, B.A.; New York University, M.A.; Additional graduate work at the University of Pittsburgh.
- Susan B. Reinhardt, M.Ed., Assistant Professor, Psychology
Grove City, B.S.; University of Pittsburgh, M.Ed.; Additional graduate work, University of Pittsburgh.
- Eugene L. Rhoads, M.S. in Ed., Assistant Professor, Mathematics
Clarion State College, B.S.; University of Pennsylvania, M.S. in Ed.; Additional graduate work, University of Chicago and University of Kansas.
- Sally J. Ringland, M.S., Assistant Professor, Mathematics
Purdue University, B.S., M.S.
- Charles W. Robbe, M.A., Assistant Professor, Social Studies
University of Iowa, University of Illinois, B.S.; Seminars—The University of Birmingham, England; University of Leyden, Holland; University of Paris, France; Chatelard School, Montreux, Switzerland; the University of Vermont, M.A.; Additional graduate research, University of California, University of Texas, Harvard University; Faculty Institute for International Studies on Asia, 1964-65.
- Richard C. Romoser, Ed.D., Professor, Psychology
Milton College, B.S.; State University of Iowa, M.A.; University of Denver, M.A., Ed.D.

- Edward Roncone, B.A., Assistant Professor, Music
Carnegie Institute of Technology, B.A.; Additional work at Carnegie Institute of Technology; Berkshire Music Center; Life Fellow, International Institute of Arts and Letters; Conductor's Symposium, Philadelphia Orchestra; Doctoral candidate at West Virginia University.
- Mildred E. Ross, Ed.D., Associate Professor, Education
West Chester State College, B.S.; Pennsylvania State University, M.S. Ed.D.
- Elizabeth A. Rupert, M.S. in L.S., Associate Professor, Director of Library Science
Clarion State College, B.S.; Syracuse University, M.S. in L.S.; Additional work at University of Pittsburgh.
- Charles A. Ruslavage, M.Ed., Assistant Professor, Physical Education
Pennsylvania State University, B.S., M.Ed.; Additional graduate work at Slippery Rock State College.
- Roy H. Schreffler, M.Ed., Associate Professor, Special Education
Juniata College, B.S.; Pennsylvania State University, M.Ed.; Additional graduate work at the University of Pittsburgh and Pennsylvania State University.
- Richard W. Schuricht, M.Ed., Instructor-Assistant Director of Admissions
University of Pittsburgh, B.A., M.Ed.
- Susan Secor, M.L.S., Instructor-Librarian
Pennsylvania State University, B.A.; University of Pittsburgh, M.L.S.
- Eugene A. Seelye, M.A., Assistant Professor, Art
Indiana State College, B.S.; Columbia University, M.A.
- Paul L. Shank, Ph.D., Professor, Physical Science
Bethany College, B.S.; Graduate work, University of West Virginia; University of Pittsburgh, M.Ed., Ph.D.
- Samuel P. Shilling, M.S., Associate Professor of Speech Pathology and Audiology
Pennsylvania State University, B.S., M.S.; Additional graduate work, Pennsylvania State University, Bucknell University, and the University of Maryland.
- Daniel K. Shirey, Jr., M.S., Associate Professor, Special Education
Pennsylvania State University, B.S., M.S.; Additional graduate work at Pennsylvania State University.
- George S. Shirey, M.A., Associate Professor of Geography
Slippery Rock State College, B.S.; Miami University, M.A.; Additional graduate work, University of Pittsburgh.
- James D. Shofestall, M.Ed., Associate Professor, Physical Science
Clarion State College, B.S.; University of Pittsburgh, M.Ed.; Additional graduate work at Brown University, Pennsylvania State University, Michigan State University, Texas A & M, and University of Michigan.
- Charles J. Shontz, Ph.D., Professor, Assistant Dean of Academic Affairs
Indiana State College, B.S.; University of Pittsburgh, M.S., Ph.D.; Additional graduate work, University of Minnesota.
- Frances M. Shope, M.Ed., Assistant Professor, Health and Physical Education
West Chester State College, B.S.; Pennsylvania State University, M.Ed.

- Ronald C. Shumaker, M.A., Instructor, English
Clarion State College, B.S.; Purdue University, M.A.
- Harold E. Simmons, Ed.D., Professor, Dean of Professional Studies
Iowa State Teachers College; Buena Vista College, B.A.; Drake University, M.S.; Teachers College, Columbia University, Ed.D.
- Betty Simpson, B.S., Instructor, Health and Physical Education
West Chester State College, B.S. in Health and Physical Education.
- Edwin R. Simpson, M.A., Assistant Professor of Speech Pathology and Audiology
Bloomsburg State College, B.S.; University of Iowa, M.A.; Additional graduate work, University of Iowa.
- Richard C. Skinner, M.Ed., Associate Professor, Education
West Illinois State Teachers College, B.Ed.; Northwestern University, M.A.; University of Illinois, M.Ed.; Additional graduate work at University of Illinois, University of Pennsylvania.
- Betty R. Slater, Ed.D., Professor, Education
Buffalo State College, B.S. in Ed.; University of Buffalo, M.Ed., Ed.D.
- DeWayne E. Slaughaupt, M.S., Assistant Professor, Physical Science
Clarion State College, B.S.; University of Pittsburgh, M.Ed.; Clarkson College of Technology, M.S.; Additional work at Pennsylvania State University and Worcester Polytechnic Institute.
- Lawrence A. Smith, Ed.D., Associate Professor, Education
Clarion State College, B.S.; University of Pittsburgh, M.Ed., Ed.D.
- Joseph R. Spence, M.Ed., Associate Professor, Head of Art Department
Edinboro State College, B.S.; Pennsylvania State University, M.Ed.; Additional graduate work, Syracuse University, Pennsylvania State University.
- Edith Steinke, Ph.D., Associate Professor, German
University of Heidelberg, M.A., Ph.D.
- Dana S. Still, Ph.D., Professor, Assistant Dean of Academic Affairs
Ohio State University, B.S., M.A.; University of Pittsburgh, Ph.D.
- Richard Summerville, M.A., Associate Professor, Mathematics
Clarion State College, B.S.; Washington University, M.A.; Additional graduate work at Kent State University, the University of Pittsburgh, and Syracuse University.
- Imogene Sumner, M.A., Assistant Professor, History
Coe College, B.A.; University of Chicago, M.A.; Additional graduate work at University of Chicago.
- Zoe Swecker, Ph.D., Professor, History
University of North Carolina, A.B.; University of Chicago, Ph.D.
- Franklin S. Takei, Ph.D., Associate Professor, Philosophy
University of Hawaii, B.A.; Fuller Theological Seminary, B.D.; University of Hawaii, M.A.; Pennsylvania State University, Ph.D.
- Charles D. Thomas, M.A., Associate Professor, Dean of Men
University of Michigan, B.A., M.A.; Additional graduate work, University of Michigan, Ph.D. candidate.
- Christine M. Totten, Ph.D., Associate Professor, German
University of Berlin; University of Heidelberg, Ph.D.; Additional graduate study at the University of Chicago.
- Don E. Totten, Ph.D., Professor, Head of Geography Department
University of Chicago, M.A.; University of Heidelberg, Ph.D.

- Raymond P. Tripp, Jr., M.A., Assistant Professor, English
University of Massachusetts, B.A.; University of Toronto, M.A. and Doctoral Candidate.
- Ngo Dinh Tu, M.A., Associate Professor, Political Science
National College, Vietnam, B.A.; American University, M.A.; Additional graduate work, Harvard University, Reserve Officer's School, Vietnam.
- Neil W. Turner, B.S., Instructor, Health and Physical Education
Pennsylvania State University, B.S.
- Necdet Ucoluk, M.S., Associate Professor, Mathematics
Technical University of Istanbul, M.S.; Istanbul University, B.S.; Additional graduate work, Carnegie Institute of Technology, Purdue University
- Joseph Uzmack, Ed.D., Associate Professor, Education
Clarion State College, B.S.; Indiana State College, M.Ed.; Pennsylvania State University, Ed.D.
- Kenneth G. Vayda, Ed.D., Associate Professor, Director, Special Education Curriculum
Pennsylvania State University, B.S., M.S., Ed.D.
- Jay Van Bruggen, M.A., Assistant Professor, Political Science
Calvin College, B.A.; Western Michigan University, State University of Iowa, M.A.; Additional graduate work at Michigan State University, University of Nebraska.
- Robert S. Van Meter, D.Mus., Professor, Acting Head of Music Department
Juilliard School of Music, B.S., M.S.; Indiana University, D.Mus. in Performance (Piano).
- Philip N. Wallace, M.A., Associate Professor-Assistant Director of Admissions
Clarion State College, B.S.; University of Pittsburgh, M.A.; Additional graduate work at Allegheny College, Oneonta State University, University of Colorado.
- Adam F. Weiss, Ph.D., Assistant Professor, Speech
University of Pennsylvania, B.A.; University of Denver, M.A., Ph.D.
- Thomas L. Wharton, M.A., Instructor, English
Ohio State University, B.A.; Rutgers University, M.A.; Additional graduate work, Rutgers University.
- Margaret J. Wiant, M.Litt., Associate Professor, Geography
Graduate of Clarion State Normal School; Clarion State College, B.S.; University of Pittsburgh, M.Litt.; Graduate work at University of Washington, Duke University, University of Colorado, Pennsylvania State University.
- Pauline M. Wiberg, B.S., Instructor, Demonstration Teacher, Primary Grades
Clarion State College, B.S.
- Samuel A. Wilhelm, Ph.D., Professor, Social Sciences
Clarion State College, B.S.; University of Pittsburgh, M.Litt., Ph.D.; Graduate work University of Wisconsin and Harvard University.
- John E. Williams, Ph.D., Associate Professor, Biological Science
Pennsylvania State University, B.S.; University of Illinois, Ph.D.
- Mary Elizabeth Williams, B.S., Instructor, Librarian
Clarion State College, B.S.; Additional graduate study at Pennsylvania State University, University of Pittsburgh.

Robin S. Wilson, Ph.D., Professor, English

Ohio State University, B.A.; University of Illinois, M.A., Ph.D.

George F. Wollaston, M.Ed., Assistant Professor, Physical Science

Clarion State College, B.S.; Pennsylvania State University, M.Ed.; Additional graduate work at Case Institute of Technology, Purdue University, Pennsylvania State University, Texas A & M University, and Carnegie Institute of Technology.

J. Kenneth Wyse, M.S. in Lib. Sci., Assistant Professor, Librarian

Clarion State College, B.S.; Western Reserve University, M.S. in Lib. Sci.; Additional graduate work, Western Reserve University, University of Pittsburgh.

Gloria A. Yough, M.A., Assistant Professor, Health and Physical Education

University of Michigan, B.S., M.A.

Richard Zallys, M.A., Instructor, Philosophy

University of Chicago, Ph.B., M.A.; Doctoral candidate, Indiana University.

EMERITI

Paul G. Chandler, Ph.D., (President Emeritus)

Kentucky Wesleyan, B.A.; Columbia University, M.A., Ph.D.

Charles F. Becker, M.A.

Mt. Union College, Ph.B.; Teachers College, Columbia University, M.A.; Additional graduate work at Columbia; Pennsylvania State University; University of Pittsburgh.

Hazel Sandford, M.A.

Graduate, State Normal School, Fredonia, N.Y.; Cornell University, B.S.; Graduate work, Teachers College, Columbia University; New York School of Fine Arts; New York University, M.A.; Thurn School of Modern Art; Carnegie Institute of Technology; University of Pittsburgh; Study in Europe.

Bertha V. Nair, M.A.

Westminster College, B.A.; University of Pittsburgh, M.A.; Additional graduate work, Harvard University; University of Wisconsin.

Margaret A. Boyd, M.A.

Graduate, two-year course, Bethany College; University of Pittsburgh, B.A., M.A.; Additional graduate work at University of Wisconsin; Oxford University, Oxford, England; University of California, Columbia University.

Marie Marwick, M.A.

Michigan State Normal College, B.Pd.; University of Arizona, B.A.; Columbia University, M.A.; Additional graduate work, University of Pittsburgh; University of California.

C. A. Kuhner, M.S.

Ohio University, B.S.; University of Wisconsin, M.S.; Additional graduate work at University of Chicago; University of Pittsburgh.

Mildred E. Gamble, M.A.

Graduate, Indiana State Normal School; University of Pittsburgh, B.A.; Teachers College, Columbia University, M.A.

Helen M. Becker, M.A.

Graduate, Clarion State Normal School; University of Pittsburgh, B.S.; Teachers College, Columbia University, M.A.; Library Science, Clarion State College.

Grace Pryor, M.Ed.

Clarion State College, B.S.; University of Pittsburgh, M.Ed.; Additional graduate work at Duke University, University of Pittsburgh, Westminster College, Bucknell University, Pennsylvania State University.

Rena M. Carlson, M.A.L.S.

Greenville College, B.A.; Carnegie Institute of Technology, B.S.L.S., Graduate work at University of Southern California; University of Michigan, M.A.L.S.

Charles R. Flack, M.A.

Library School, University of Wisconsin; University of Alberta, B.A.; University of Illinois, B.L.S., M.A.; Additional graduate study, University of Illinois and University of Chicago.

Martha Stewart, M.Ed.

Northwestern University, B.A.; Carnegie Institute of Technology, B.S. in L.S.; University of Pittsburgh, M.Ed.

Waldo S. Tippin, M.A., Professor, Education, Director of Athletics
Attended Kansas State College; Geneva College, B.S.; Graduate work University of Michigan, University of Pittsburgh; Columbia University, M.A.

Donald R. Predmore, Ph.D., Professor, Biological Science
Miami University; University of Pittsburgh, B.S., M.A., Ph.D.; Additional graduate work at University of Colorado, University of Southern California. Columbia University, University of Miami.

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